


# TC-KB920S

## SERVICE MANUAL

*AEP Model  
E Model  
Australian Model*



Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang & Olufsen. "DOLBY", the double-D symbol , and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.

|                                    |             |
|------------------------------------|-------------|
| Model Name Using Similar Mechanism | TC-KE500S   |
| Tape Transport Mechanism Type      | TCM-190VB14 |

### SPECIFICATIONS

#### System

##### Recording system

4-track 2-channel stereo

##### Fast winding time (approx.)

90 sec. (with Sony C-60 cassette)

##### High-speed fast-winding time (approx.)

45 sec. (with Sony C-60 cassette)

##### Bias

AC bias

##### Heads

Erasing head × 1 (S&F head)  
Recording head × 1 (SD head)  
Playing head × 1 (SD head)

##### Motors

Capstan motor × 1 (DC servo motor)  
Reel motor × 1 (DC motor)

##### Signal-to-noise ratio (at peak level, weighted, and with Dolby NR off)

Type I tape, Sony Type I (NORMAL): 57 dB  
Type II tape, Sony Type II (HIGH): 59 dB  
Type IV tape, Sony Type IV (METAL): 61 dB

##### S/N ratio improvement (approximate values)

With Dolby B NR on: 5 dB at 1 kHz, 10 dB at 5 kHz  
With Dolby C NR on: 15 dB at 500 Hz, 20 dB at 1 kHz  
With Dolby S NR on: 10 dB at 100 Hz, 24 dB at 1 kHz

##### Harmonic distortion

0.4% (with Type I tape, Sony Type I (NORMAL):  
160n Wb/m 315 Hz, 3rd H.D.)  
1.5% (with Type IV tape, Sony Type IV (METAL):  
250n Wb/m 315 Hz, 3rd H.D.)

##### Frequency response (Dolby NR off)

Type I tape, Sony Type I (NORMAL):  
20 - 17,000 Hz (±3 dB, IEC)  
15 - 18,000 Hz (±6 dB)  
Type II tape, Sony Type II (HIGH):  
20 - 18,000 Hz (±3 dB, IEC)  
15 - 19,000 Hz (±6 dB)  
Type IV tape, Sony Type IV (METAL):  
20 - 20,000 Hz (±3 dB, IEC)  
20 - 16,000 Hz (±3 dB, -4dB recording)  
15 - 21,000 Hz (±6 dB)

##### Inputs

##### Line inputs (phono jacks)

Sensitivity: 0.16 V  
Input impedance: 47 kilohms

— Continued on next page —

## STEREO CASSETTE DECK

# SONY®



Outputs

Line outputs (phono jacks)  
Rated output level: 0.5 V at a load impedance of 47 kilohms  
Load impedance: Over 10 kilohms

Headphones (stereo phone jack)  
Output level: 0.25 mW at a load impedance of 32 ohms

General

| Power requirements |   |
|--------------------|---|
| Where purchased    | Power requirements  |
| Continental Europe | 220 - 230 V AC, 50/60 Hz  |
| Australia          | 240 V AC, 50/60 Hz  |
| Other countries    | 120, 220, or 230 - 240 V AC, 50/60Hz adjustable with the voltage selector |

Power consumption  
23 W

Dimensions (approx.) (w/h/d)  
430 × 123 × 305 mm  
incl. projecting parts and controls

Mass (approx.)  
5.1 kg

Supplied accessories  
Audio connecting cords (2)

Design and specifications are subject to change without notice.

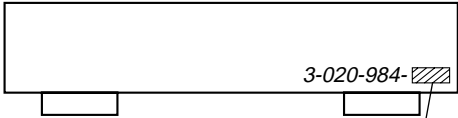
Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

MODEL IDENTIFICATION  
– BACK PANEL –



AEP Model : 0 ☐  
Australian Model : 2 ☐  
Malaysia, Singapore Model: 3 ☐

SAFETY-RELATED COMPONENT WARNING!!

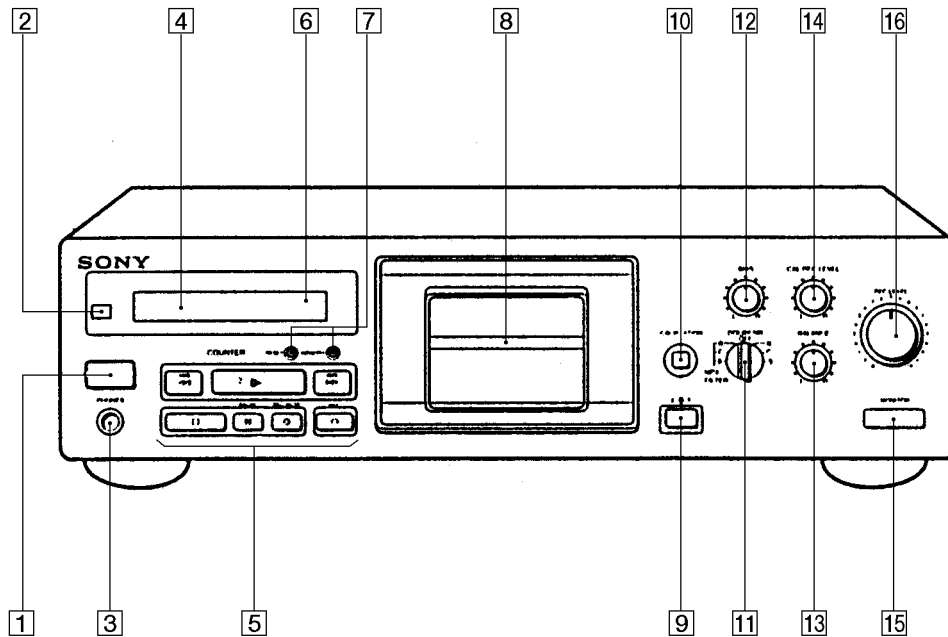
COMPONENTS IDENTIFIED BY MARK  $\triangle$  OR DOTTED LINE WITH MARK  $\triangle$  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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## SECTION 1 GENERAL

### LOCATION OF CONTROLS



- 1 I/O (Power) button
- 2 Remote control sensor
- 3 PHONES jack
- 4 Display panel
- 5 Tape operation buttons
  - AMS\* <<< button
  - >>> button
  - AMS\* >>> button
  - button
  - || PAUSE button
  - REC MUTING button
  - REC button
- 6 Tape counter
- 7 Counter buttons
  - RESET button
  - MEMORY button
- 8 Cassette holder

- 9 EJECT button
- 10 AUTO CAL button
- 11 DOLBY NR switch
- 12 BIAS control
- 13 BALANCE control
- 14 CAL REC LEVEL control
- 15 MONITOR button
- 16 REC LEVEL control

\* AMS is an abbreviation for Automatic Music Sensor.

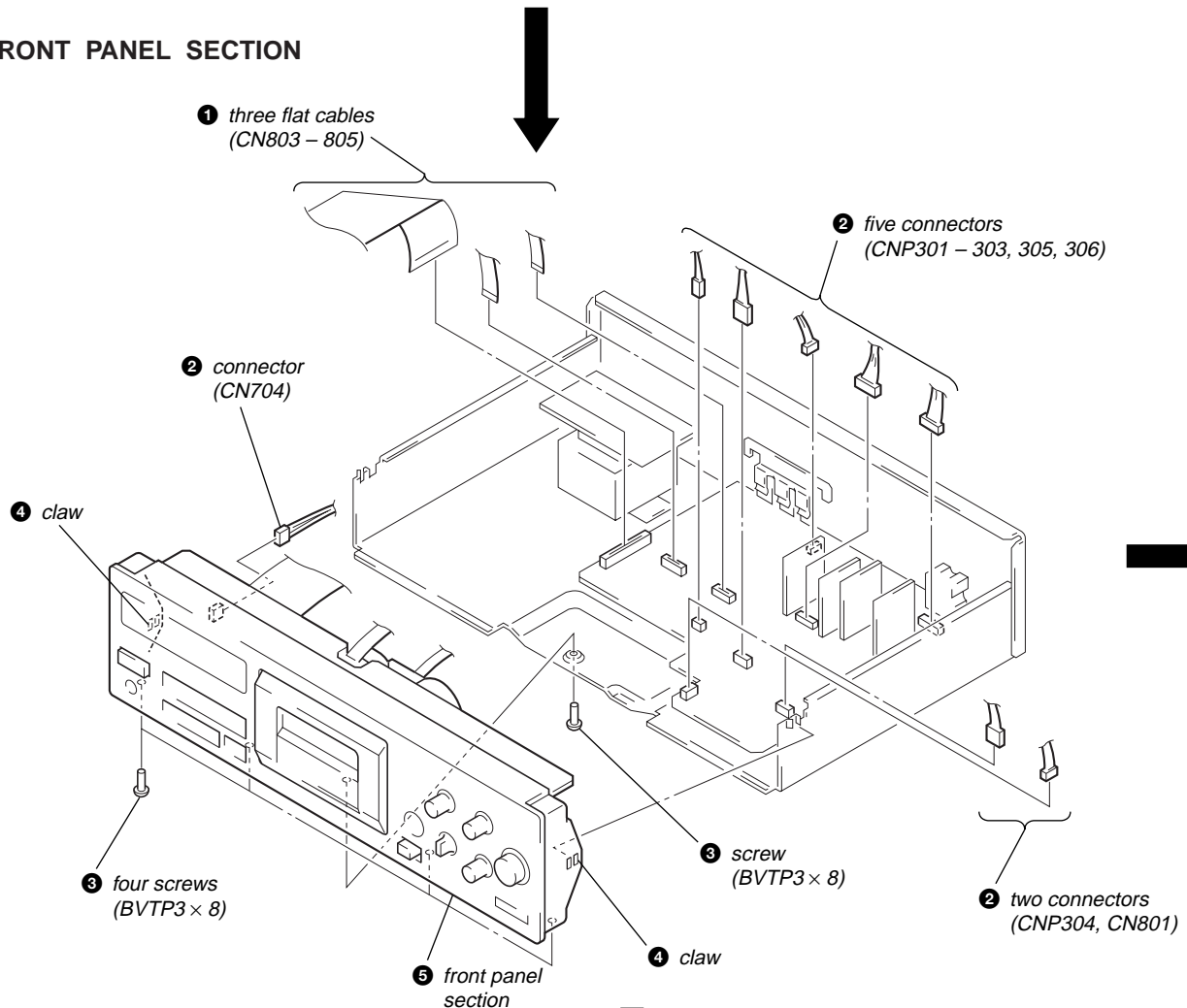
## SECTION 2 DISASSEMBLY

**Note:** Follow the disassembly procedure in the numerical order given.

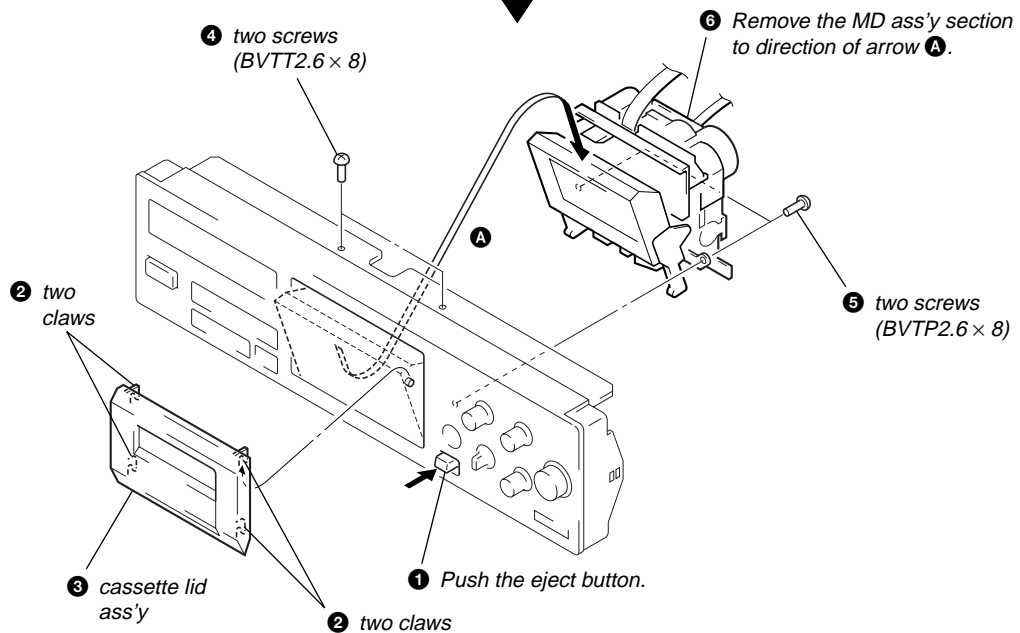
### CASE

Unscrew the four case attachment seven tapping screws and remove the case.

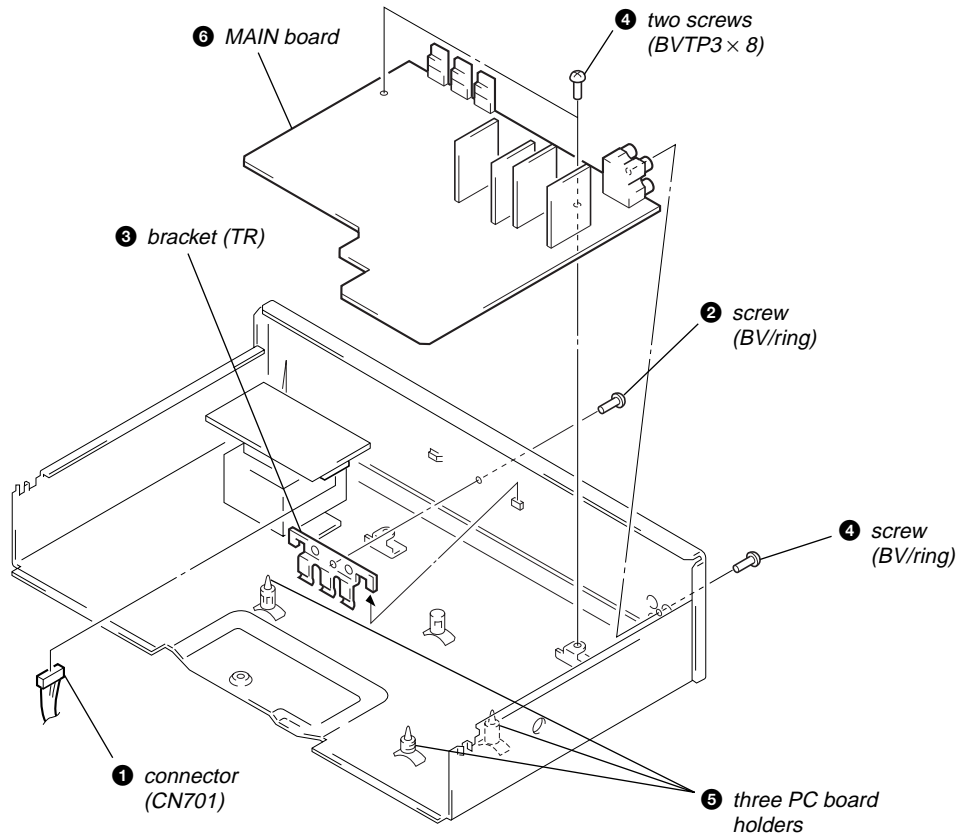
### FRONT PANEL SECTION



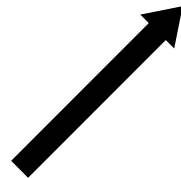
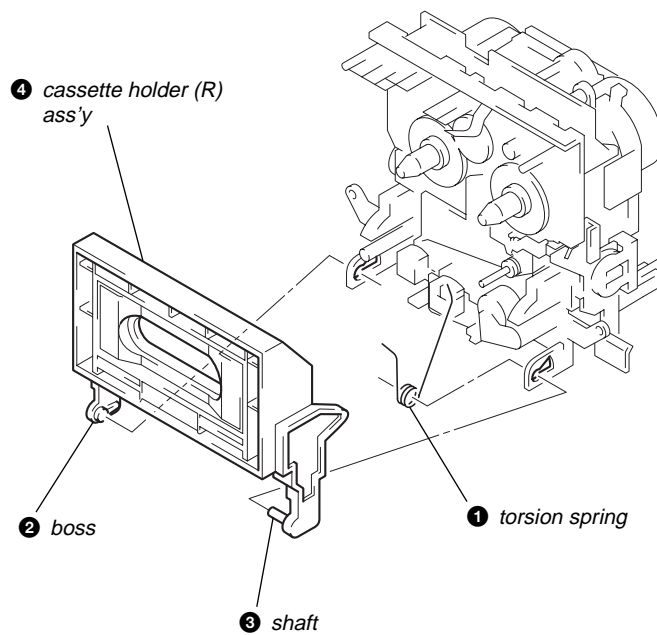
### MD ASS'Y SECTION



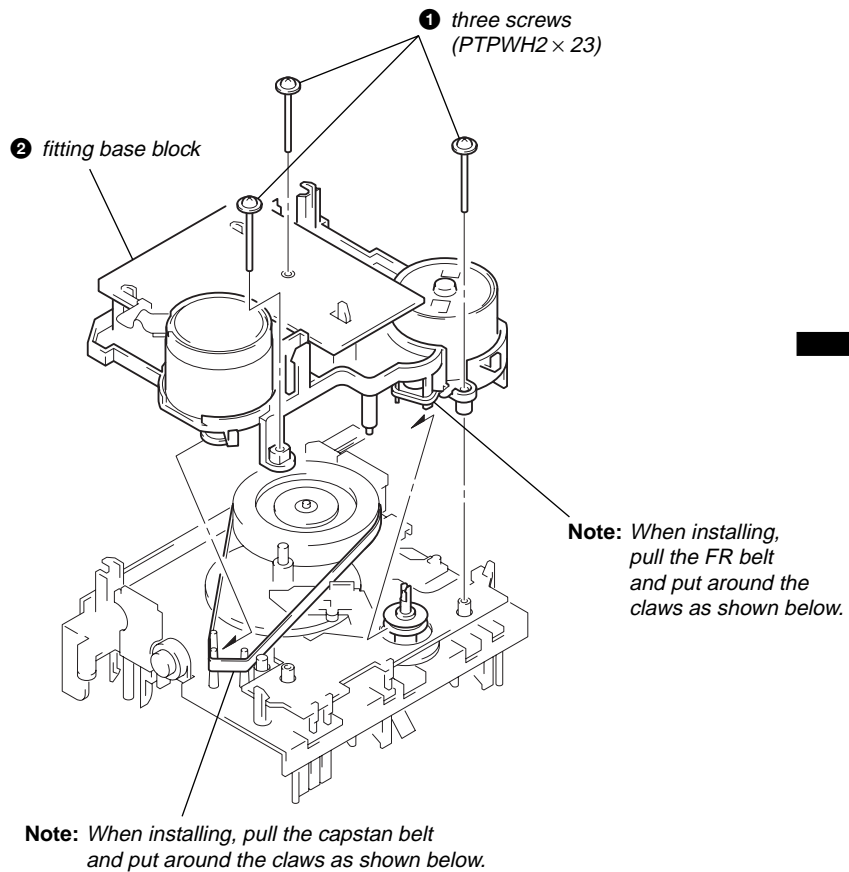
## MAIN BOARD



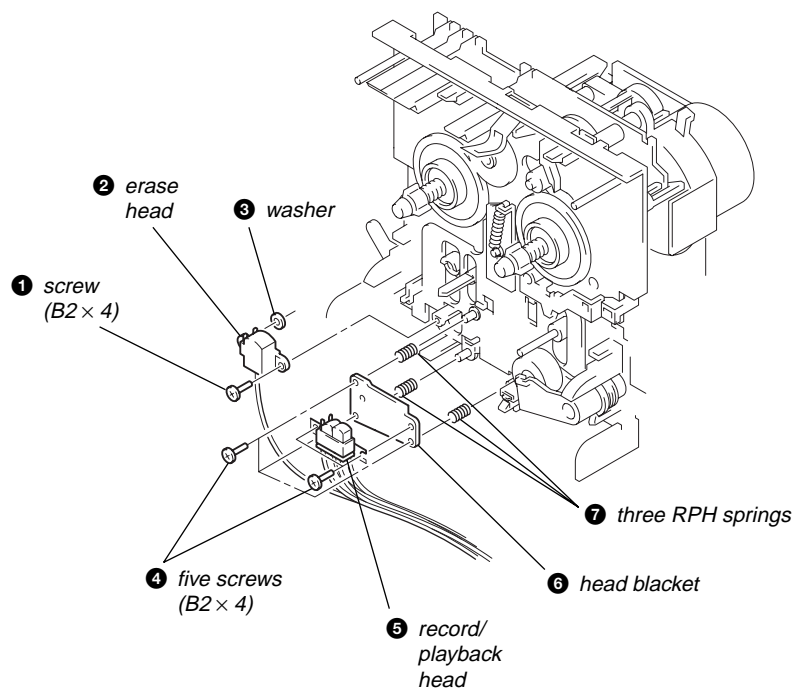
## CASSETTE HOLDER (R) ASS'Y



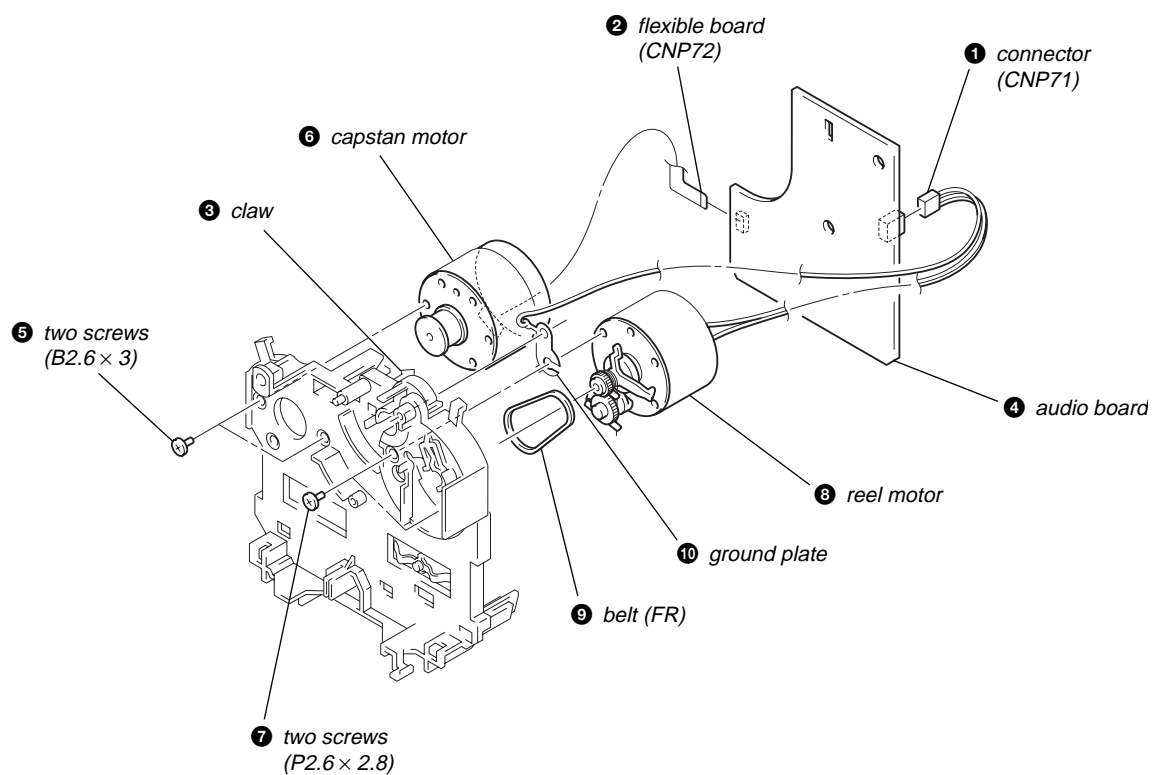
## FITTING BASE BLOCK



## HEAD



## AUDIO BOARD AND MOTOR





## SECTION 3 MECHANICAL ADJUSTMENTS

### PRECAUTION

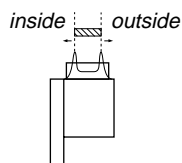
- Clean the following parts with a denatured alcohol-moistened swab:  
 record/playback/erase head    pinch roller  
 rubber belts                      capstan  
 idler
- Demagnetize the record/playback head with a head demagnetizer.  
 (Head demagnetizer do not approach for the erase head.)
- Do not use a magnetized screwdriver for the adjustment.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed with the rated power supply voltage unless otherwise noted.

### • Torque Measurement

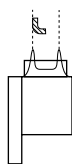
| Mode                       | Torque Meter | Meter Reading                            |
|----------------------------|--------------|--|
| Forward                    | CQ-102C      | 30 to 65 g•cm<br>(0.42 to 0.90 oz•inch)  |
| Forward<br>back<br>tension | CQ-102C      | 1 to 6 g•cm<br>(0.014 to 0.08 oz•inch)   |
| FF/REW                     | CQ-201B      | 70 to 120 g•cm<br>(0.98 to 1.66 oz•inch) |

### Record/Playback Head Height/Declination Adjustment Procedures:

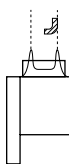
- Test cassette: CQ-009C
- Insert the mirror cassette and put the unit in record/Playback mode.
- Height Adjustment:  
 Check to see if the tape is curling at the tape guide of the head. If it is curling, tighten screws **A**, **B** and **C**, respectively by the same angle, moving the head so that it remains at the same angle throughout the procedure. If it curls on the bottom side of the mirror cassette (actually the inner side), tighten all the screws equally; but loosen them if the tape begins to curl on the top side. (outer side.)



*Normal  
(Record/playback head  
as seen from the side of  
the erasehead.)*



*Curling on the inner  
side  
Tighten screws **A**, **B**  
and **C**.*



*Curling on  
the outer side  
Loosen screws **A**,  
**B** and **C**.*

### 2) Declination Adjustment:

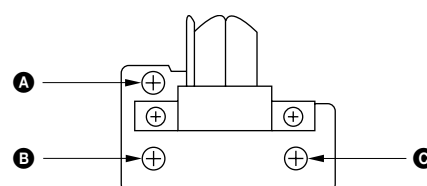
While in the record/playback position, set the back tension to 0 (wind the supply reel with something thin like a pencil in a counterclockwise direction) and make sure there is no curling or shifting (shifting up/shifting down) at the guide of the record/playback head.

Because shifting can only occur due to a difference in the width of the tape and that of the tape guides (curling will otherwise occur), it is necessary to pay close attention since it can be easily overlooked.

When there is a shift, tighten screws B and C equally and change the declination of the head. If the tape is shifting up, tighten the screws, and if it is shifting down, loosen them.

Repeat the adjustments in steps 1) to 2) and fine adjust the height and the declination.

**Adjustment Location:** – record/playback head –



## SECTION 4 ELECTRICAL ADJUSTMENTS

**Note:** The adjustment should be performed in the order given in the service manual. As a rule, adjustments about playback should be performed before those about recording.

The adjustments should be performed before for both L-CH and R-CH.

- Switches and controls should be set as follows unless otherwise specified.

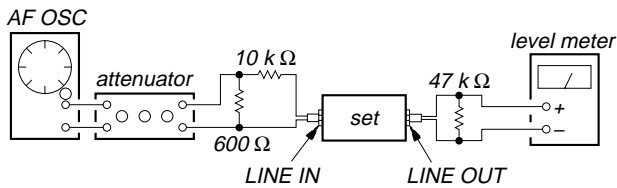
DOLBY NR, MPX FILTER switch: OFF

MONITOR switch: Tape

- Standard Record:

Deliver the standard input signal level to the input jack and set the REC LEVEL control to obtain the standard output signal level.

– Record Mode –



0 dB=0.775 V

### Standard Input Level

|                    |                 |
|--------------------|-----------------|
| input terminal     | LINE IN         |
| source impedance   | 10 kΩ           |
| input signal level | 0.5 V (−3.8 dB) |

### Standard Output Level

|                     |                 |
|---------------------|-----------------|
| output terminal     | LINE OUT        |
| load impedance      | 47 kΩ           |
| output signal level | 0.5 V (−3.8 dB) |

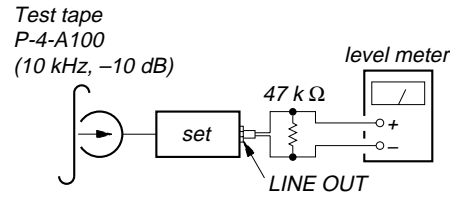
### Test Tape

| Type     | Signal         | Used for                  |
|----------|----------------|---------------------------|
| P-4-A100 | 10 kHz, −10 dB | Azimuth Adjustment        |
| P-4-L300 | 315 Hz, 0 dB   | Playback Level Adjustment |
| WS-48B   | 3 kHz, 0 dB    | Tape Speed Adjustment     |

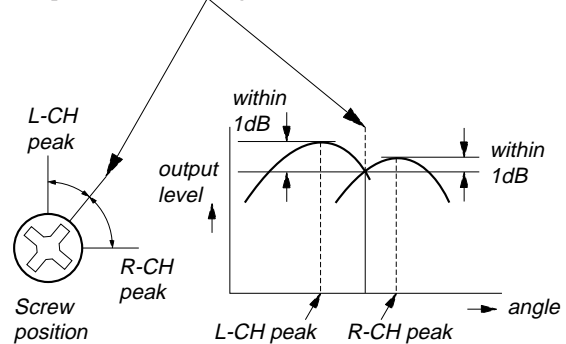
### Record/Playback Head Azimuth Adjustment

#### Procedure:

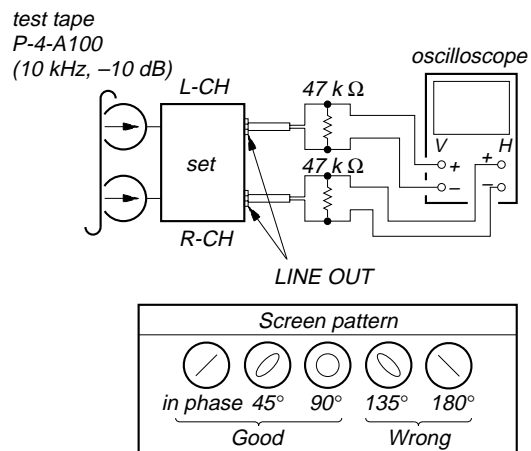
- Mode: FWD playback



- Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 1 dB.

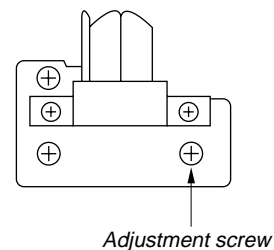


- Phase Check  
Mode: playback



- After the adjustment, lock the screw with locking compound.

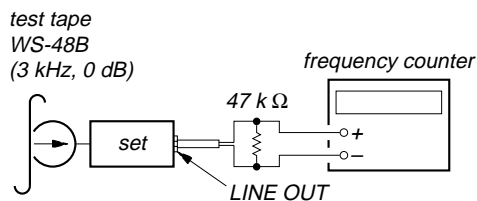
**Adjustment Location:** Record/Playback head



## Tape Speed Adjustment

### Procedure:

Mode: playback



1. Set to FWD playback mode.
2. Adjust RV71 so that the frequency counter reading becomes  $3,000 \pm 90$  Hz.
3. Frequency difference between the beginning and the end of the tape should be within 3%.

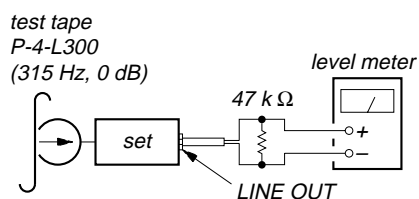
**Adjustment Location:** AUDIO board (See page 12.)

Sample value of Wow and Flutter: 0.3% or less W.RMS (JIS) (WS-48B)

## Playback Level Adjustment

### Procedure:

Mode: playback



Adjust RV121 (L-CH) and RV221 (R-CH) so that the reading on level meter meets the adjustment limits below.

### Adjustment Limits:

LINE OUT level:  $-7.7 \pm 0.5$  dB (0.301 to 0.338 V)

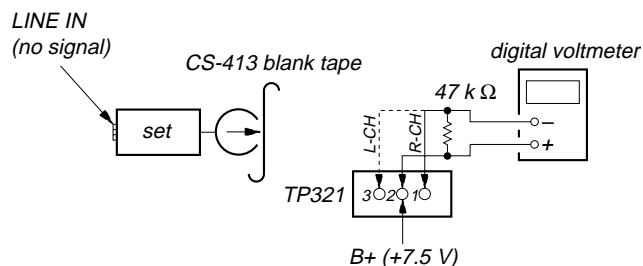
Level difference between channels: within 0.5 dB

Check that the LINE OUT level does not change even if Playback and Stop operation is repeated several times.

**Adjustment Location:** MAIN board (See page 12.)

## Bias Consumption Current Adjustment

### Procedure:



1. Set RV103 (L-CH) and RV203 (R-CH) to mechanical center and turn the set recording mode.
2. Connect digital voltmeter as shown by the following table.
3. Adjust the following transformers for the minimum readings on the digital voltmeter.

|      | Measurement Point | Adjustment Part | Value   |
|------|-------------------|-----------------|---------|
| L-CH | ② and ③, TP321    | T101            | minimum |
| R-CH | ① and ②, TP321    | T201            |         |

**Adjustment Location:** MAIN board (See page 12.)

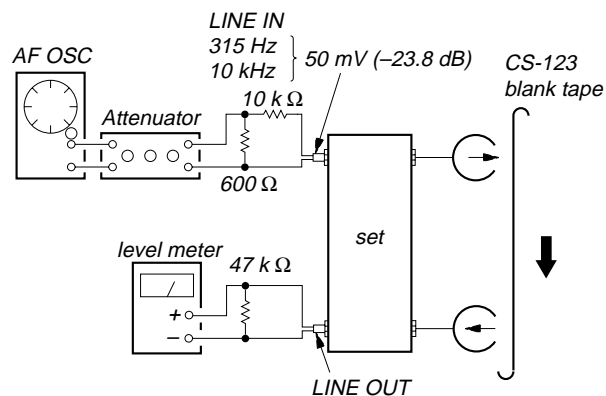
## Record Bias Adjustment

### Setting:

REC LEVEL control: Standard Record (See page 10.)

### Procedure:

1. Mode: record and playback



2. Adjust RV103 (L-CH) and RV203 (R-CH) so that 10 kHz playback output is  $0 \pm 0.3$  dB relative to the 315 Hz output.

**Adjustment Location:** MAIN board (See page 12.)

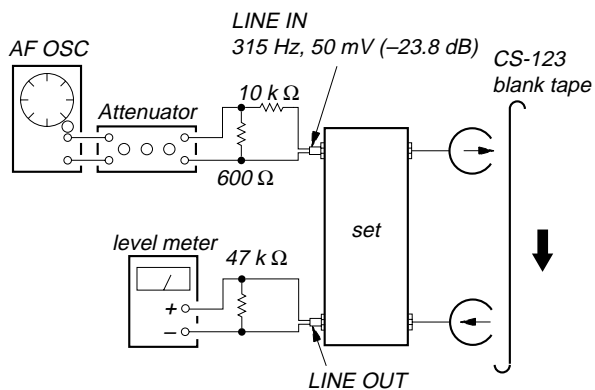
## Record Level Adjustment

### Setting:

REC LEVEL control: Standard Record (See page 10.)

### Procedure:

1. Mode: record and playback



2. Adjust RV101 (L-CH) and RV201 (R-CH) so that the reading on level meter meets the adjustment limits below.

**Adjustment Limits:**  $-23.8 \pm 0.5$  dB (47.2 to 53 mV)

**Adjustment Location:** MAIN board

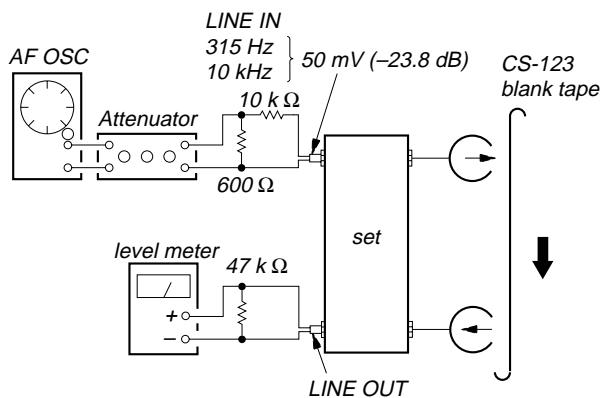
## Record EQ (IV) Adjustment

### Setting:

REC LEVEL control: Standard Record (See page 10.)

### Procedure:

1. Mode: record and playback



2. Adjust RV102 and RV202 so that they become maximum.
3. Adjust RV102 (L-CH) and RV202 (R-CH) so that the difference between R-CH and L-CH at 10 kHz is within 1 dB.
4. Adjust RV306 so that the R-CH meet the specification.

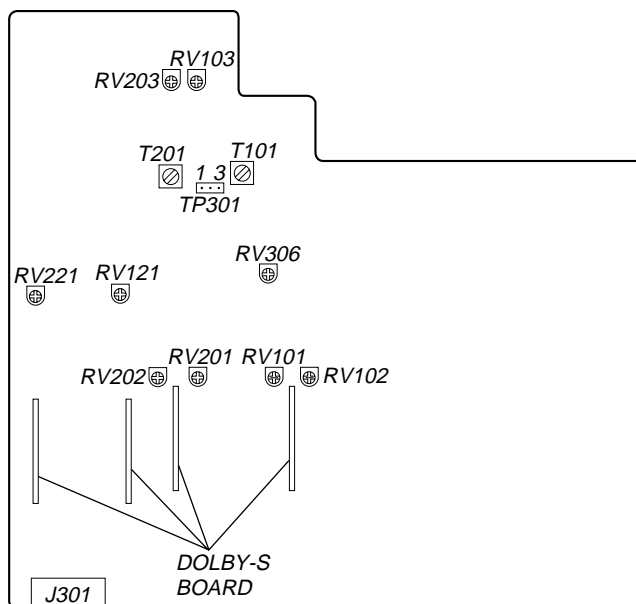
### Adjustment Limits:

10 kHz level difference against 315 Hz reference.  
 $0 \pm 1.0$  dB

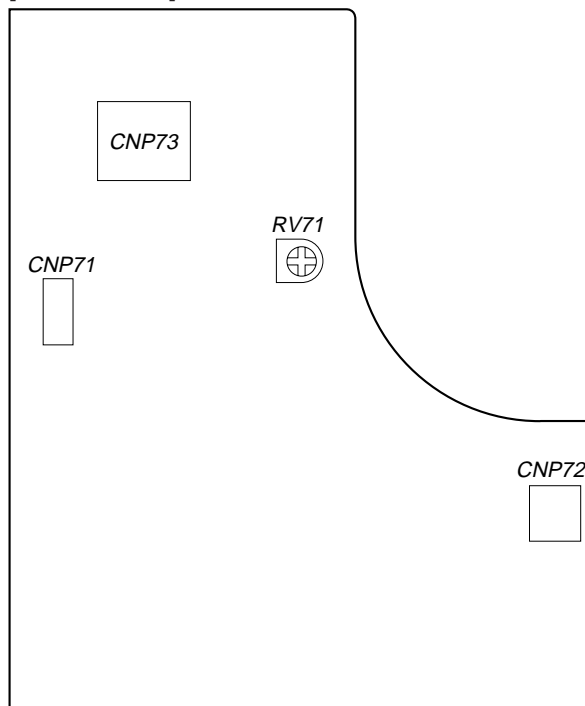
**Adjustment Location:** MAIN board

### Adjustment Location:

**[MAIN BOARD] – COMPONENT SIDE –**



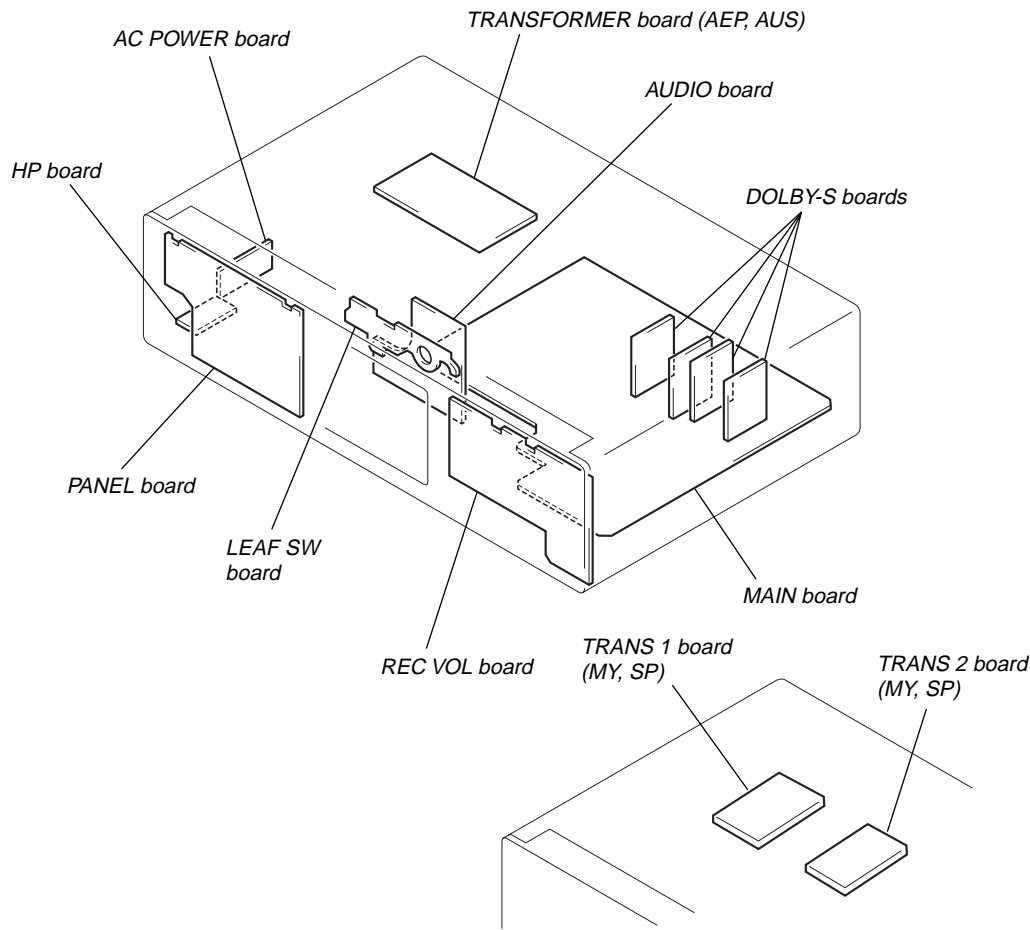
**[AUDIO BOARD] – COMPONENT SIDE –**



SECTION 5  
DIAGRAMS

• Circuit Boards Location

- Abbreviation  
AUS : Australian  
MY : Malaysia  
SP : Singapore



5-1. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

(In addition to this, the necessary note is each block.)

Note on Schematic Diagram:

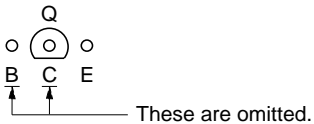
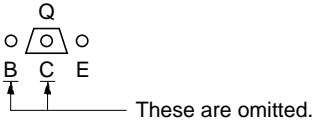
- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{F}$  50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $\frac{1}{4}\text{W}$  or less unless otherwise specified.
- $\Delta$  : internal component.
- : nonflammable resistor.
- : fusible resistor.
- : panel designation.

**Note:** The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

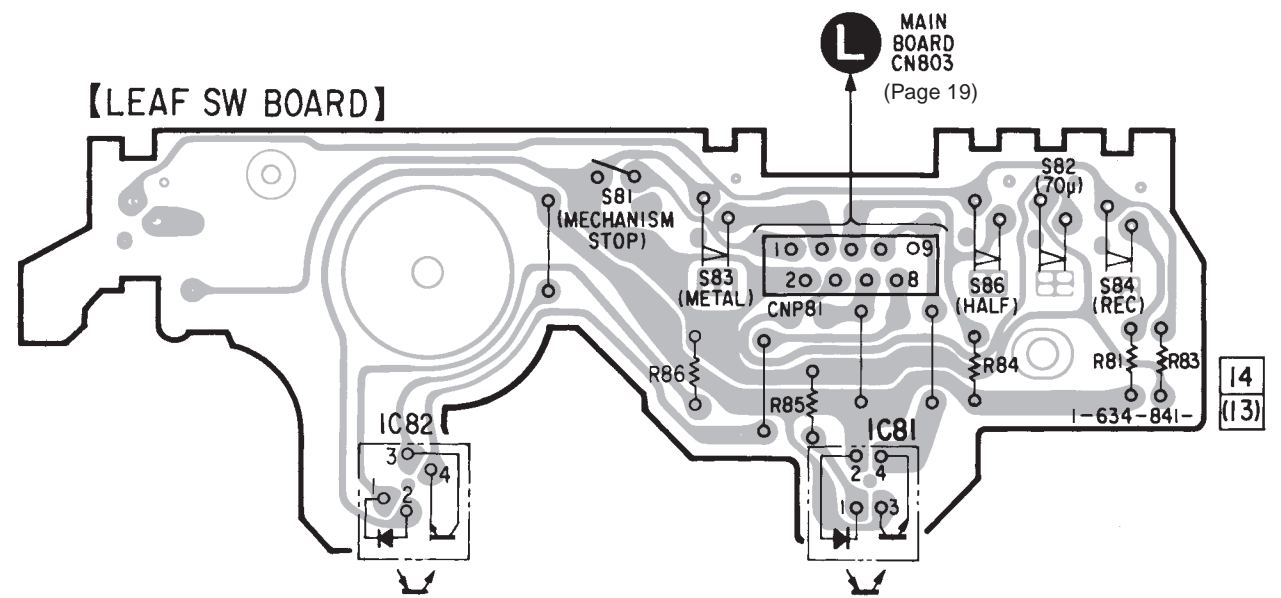
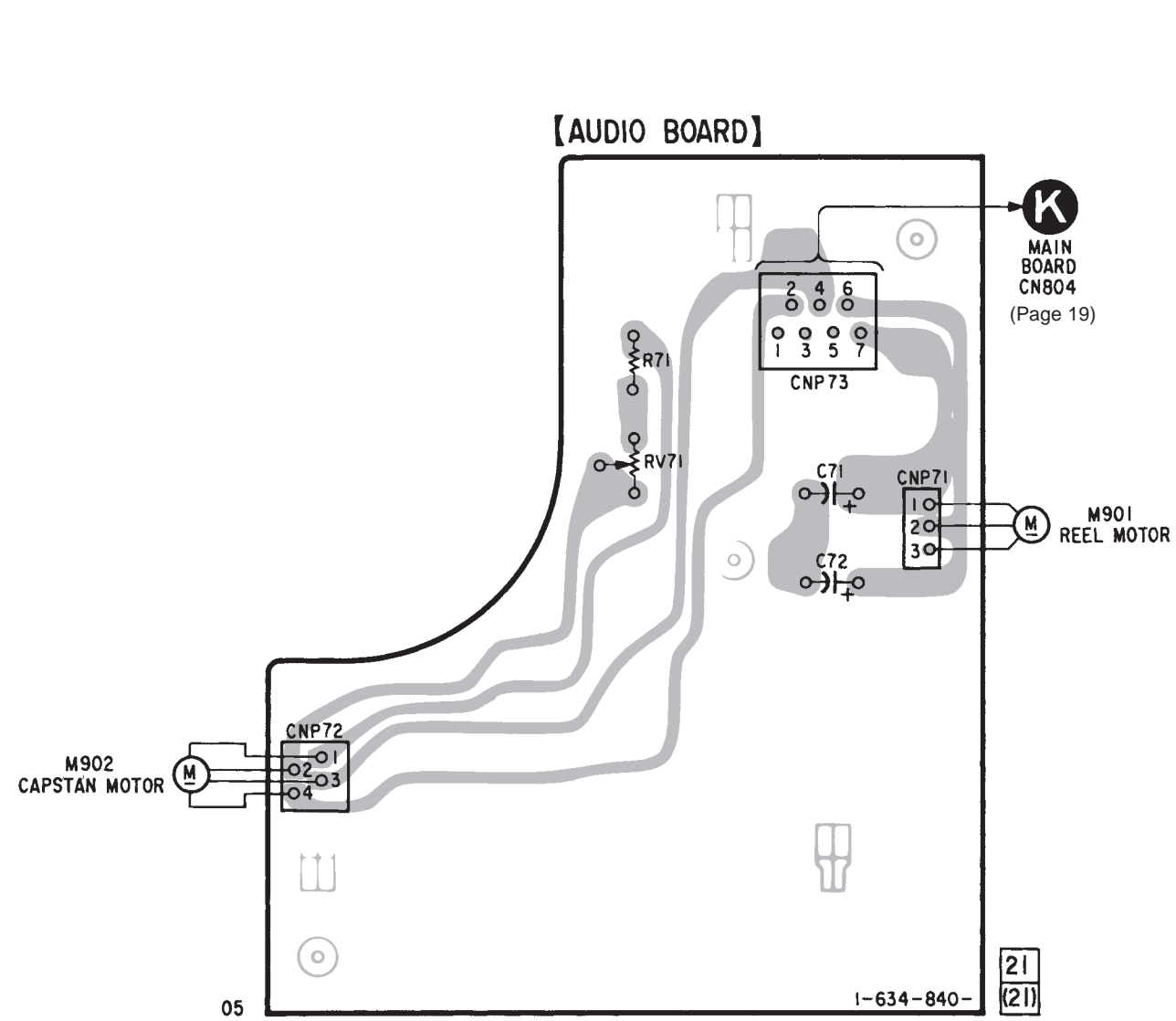
- : B+ Line.
- : B- Line.
- : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.  
no mark : PB  
( ) : REC
- Voltages are taken with a VOM (Input impedance 10 M $\Omega$ ).  
Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.  
Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.  
 : PB  
 : REC
- Abbreviation  
AUS : Australian model.  
MY : Malaysia model.  
SP : Singapore model.

Note on Printed Wiring Boards:

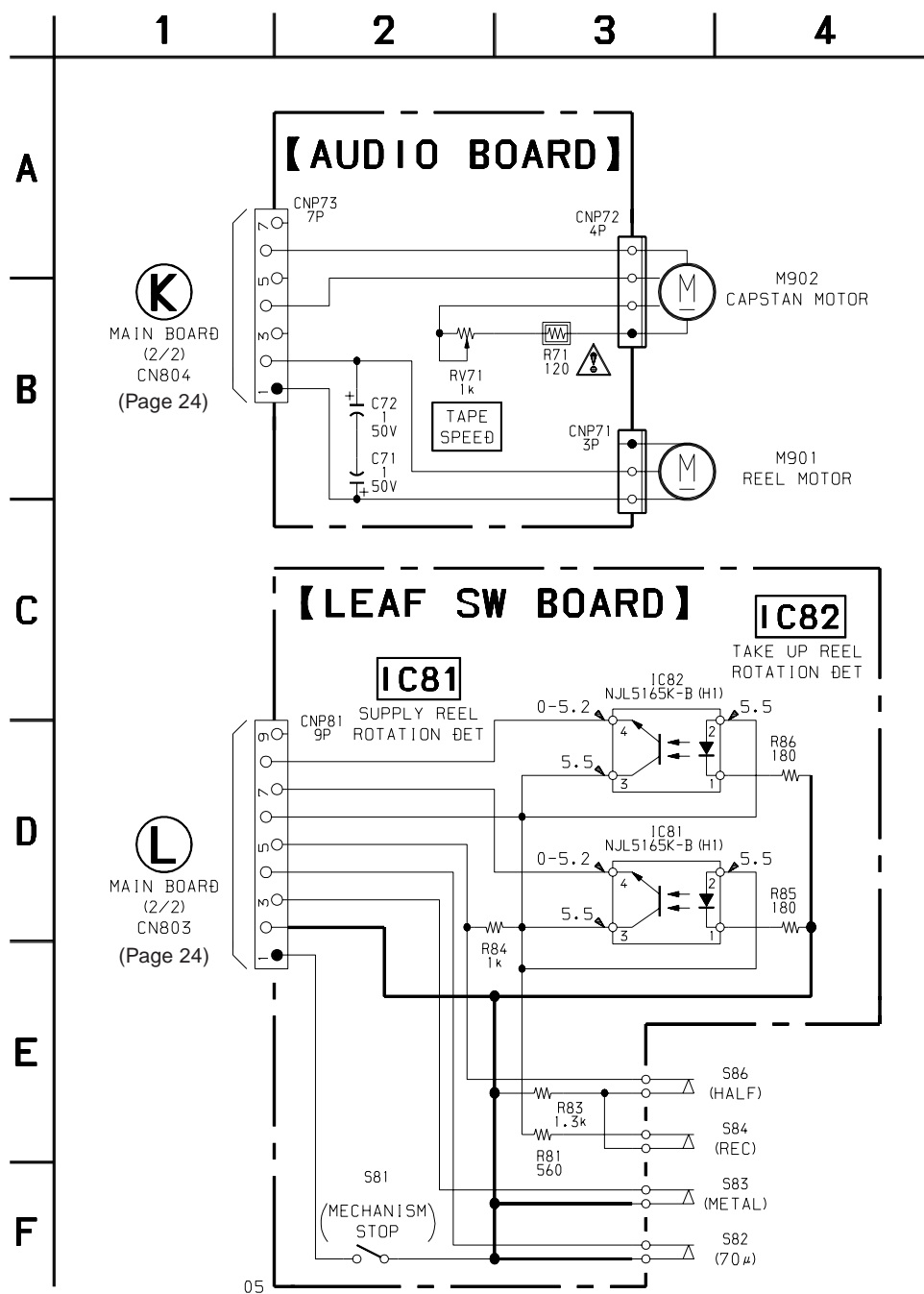
- : parts extracted from the component side.
- : parts extracted from the conductor side.
- : Pattern from the side which enables seeing.
- Abbreviation  
AUS : Australian model.  
MY : Malaysia model.  
SP : Singapore model.
- Indication of transistor.



5-2. PRINTED WIRING BOARDS – MD Section – • See page 13 for Circuit Boards Location.



## 5-3. SCHEMATIC DIAGRAM – MD Section –

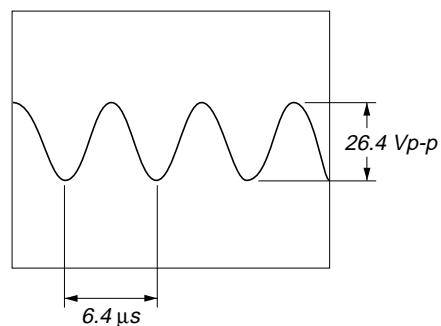


The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety.  
Replace only with part number specified.

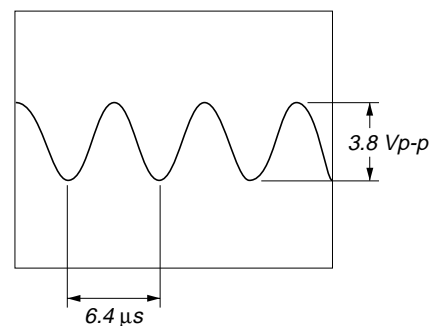
# • Waveforms

## – MAIN BOARD (1/2) –

① T101 ④

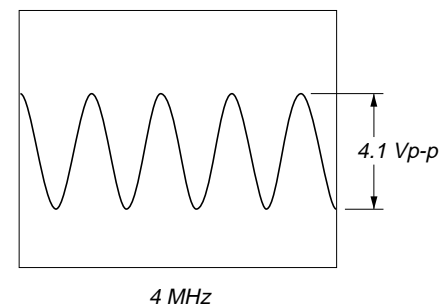


④ IC304 ⑦, ⑧

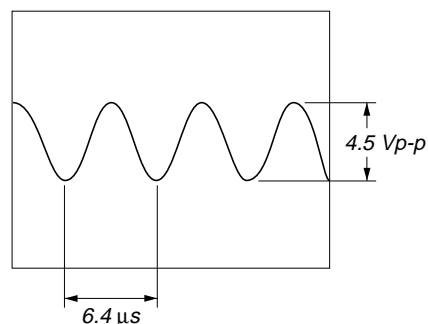


## – MAIN BOARD (2/2) –

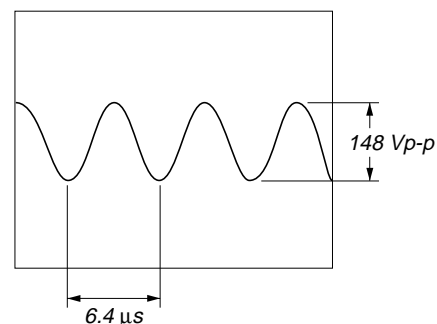
⑦ IC801 ⑩ (XIN)



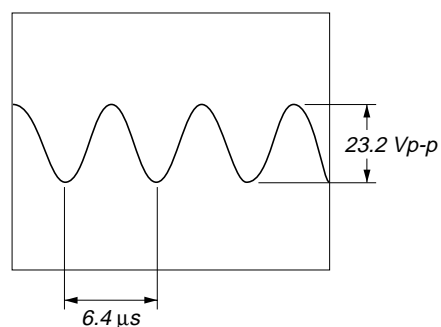
② IC304 ⑪, ⑫



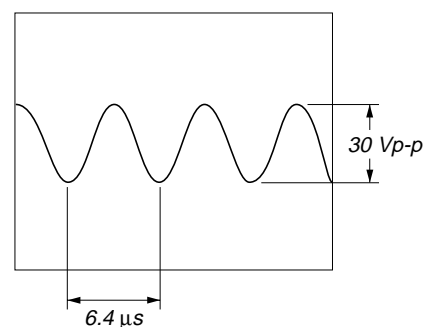
⑤ T301 ①



③ T201 ④

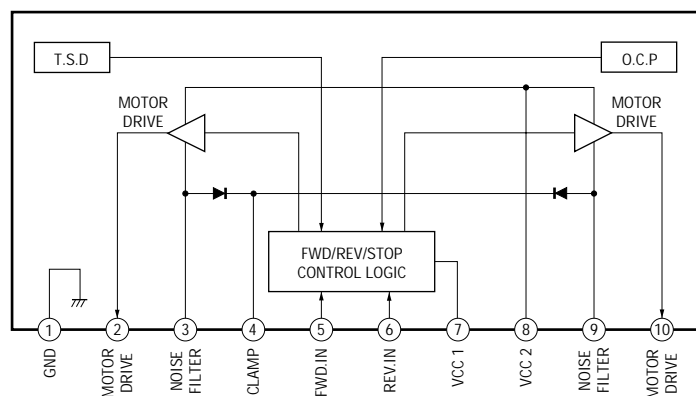


⑥ IQ310 ③, Q311 ③



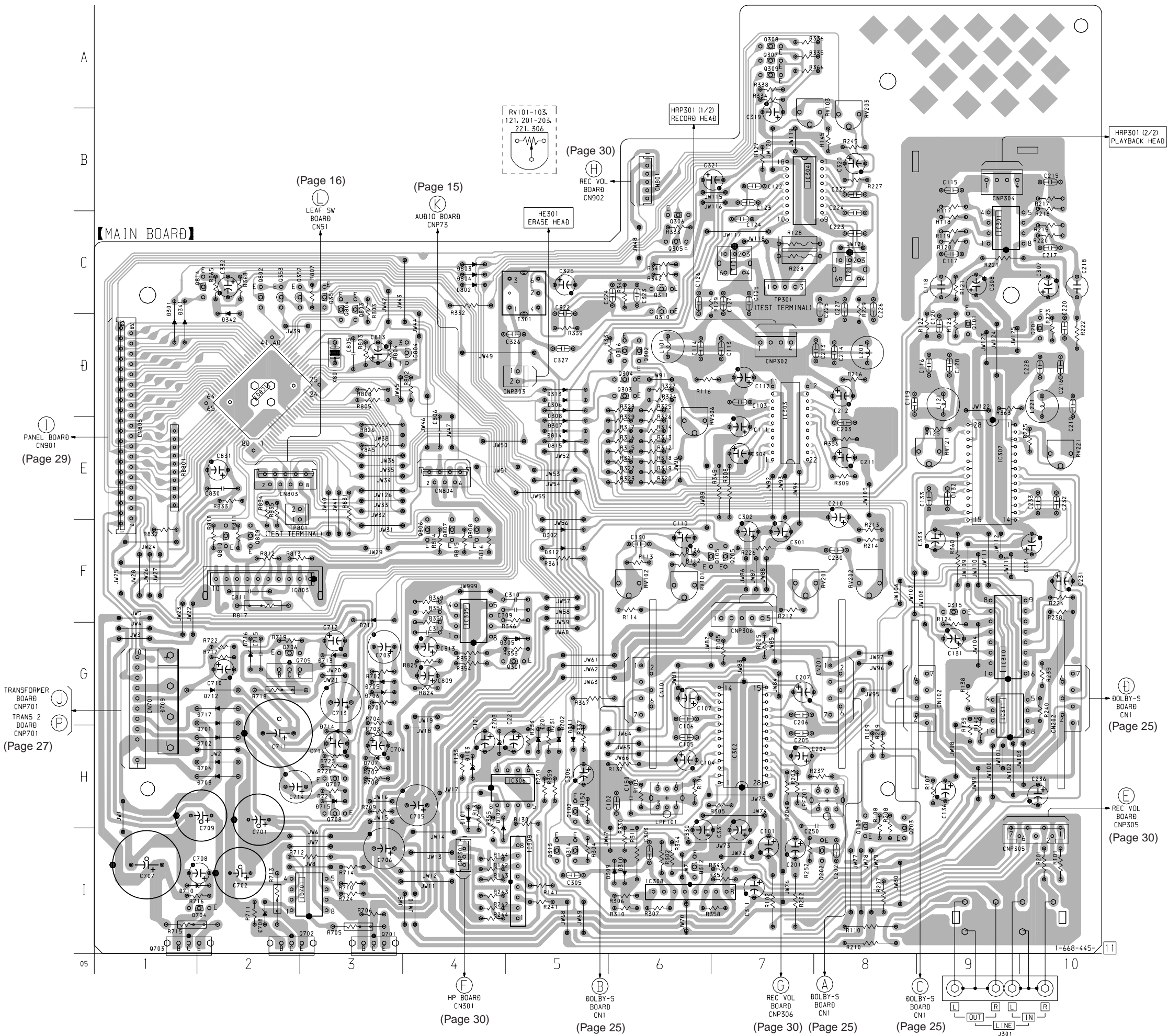
# • IC Block Diagram

## IC803 BA6219B (MAIN BOARD)





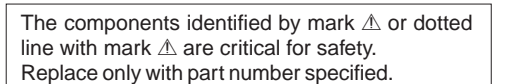
5-4. PRINTED WIRING BOARD – MAIN Section – • See page 13 for Circuit Boards Location.



• Semiconductor Location

| Ref. No. | Location | Ref. No. | Location |
|----------|----------|----------|----------|
| D101     | H-4      | IC310    | G-9      |
| D102     | H-4      | IC311    | G-9      |
| D103     | H-4      | IC701    | I-3      |
| D201     | H-5      | IC801    | D-2      |
| D202     | H-5      | IC803    | F-2      |
| D203     | H-4      | IC804    | D-4      |
| D301     | D-1      |          |          |
| D302     | F-5      | Q101     | D-9      |
| D305     | G-5      | Q102     | H-5      |
| D306     | D-5      | Q103     | H-8      |
| D307     | E-5      | Q105     | F-7      |
| D308     | D-5      | Q201     | D-10     |
| D309     | I-6      | Q202     | I-8      |
| D310     | I-6      | Q203     | I-8      |
| D311     | H-5      | Q205     | F-7      |
| D312     | F-5      | Q301     | G-5      |
| D313     | D-5      | Q302     | D-6      |
| D341     | D-1      | Q303     | D-6      |
| D342     | D-2      | Q304     | D-6      |
| D701     | G-2      | Q305     | C-6      |
| D702     | H-2      | Q306     | C-6      |
| D703     | H-2      | Q307     | A-7      |
| D704     | H-2      | Q308     | A-7      |
| D705     | G-3      | Q309     | A-7      |
| D706     | G-3      | Q310     | C-6      |
| D707     | H-3      | Q311     | C-6      |
| D708     | I-2      | Q312     | I-6      |
| D709     | G-1      | Q313     | I-5      |
| D710     | I-1      | Q314     | I-5      |
| D711     | F-3      | Q315     | F-9      |
| D712     | G-2      | Q316     | D-6      |
| D713     | G-3      | Q351     | C-3      |
| D714     | H-3      | Q352     | C-2      |
| D715     | H-3      | Q353     | C-2      |
| D716     | G-2      | Q701     | I-3      |
| D717     | G-2      | Q702     | I-2      |
| D802     | C-4      | Q703     | I-1      |
| D803     | C-4      | Q704     | I-2      |
| D804     | C-4      | Q705     | G-2      |
| D814     | E-5      | Q706     | G-2      |
| D815     | E-5      | Q707     | H-3      |
|          |          | Q708     | H-3      |
|          |          | Q802     | C-2      |
| IC301    | C-9      | Q803     | C-3      |
| IC302    | H-7      | Q804     | C-3      |
| IC303    | E-7      | Q806     | F-4      |
| IC304    | B-7      | Q807     | F-4      |
| IC305    | F-4      | Q808     | F-4      |
| IC306    | H-5      | Q809     | F-2      |
| IC307    | E-9      | Q810     | F-2      |
| IC308    | I-6      | Q814     | C-2      |
| IC309    | I-5      |          |          |

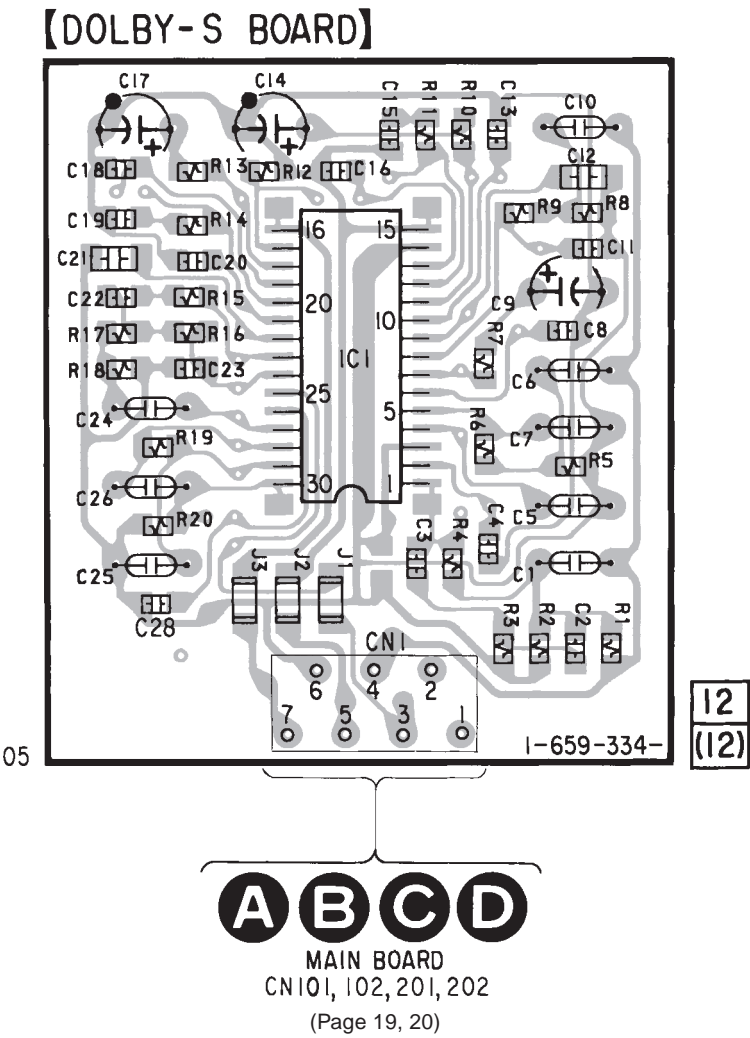




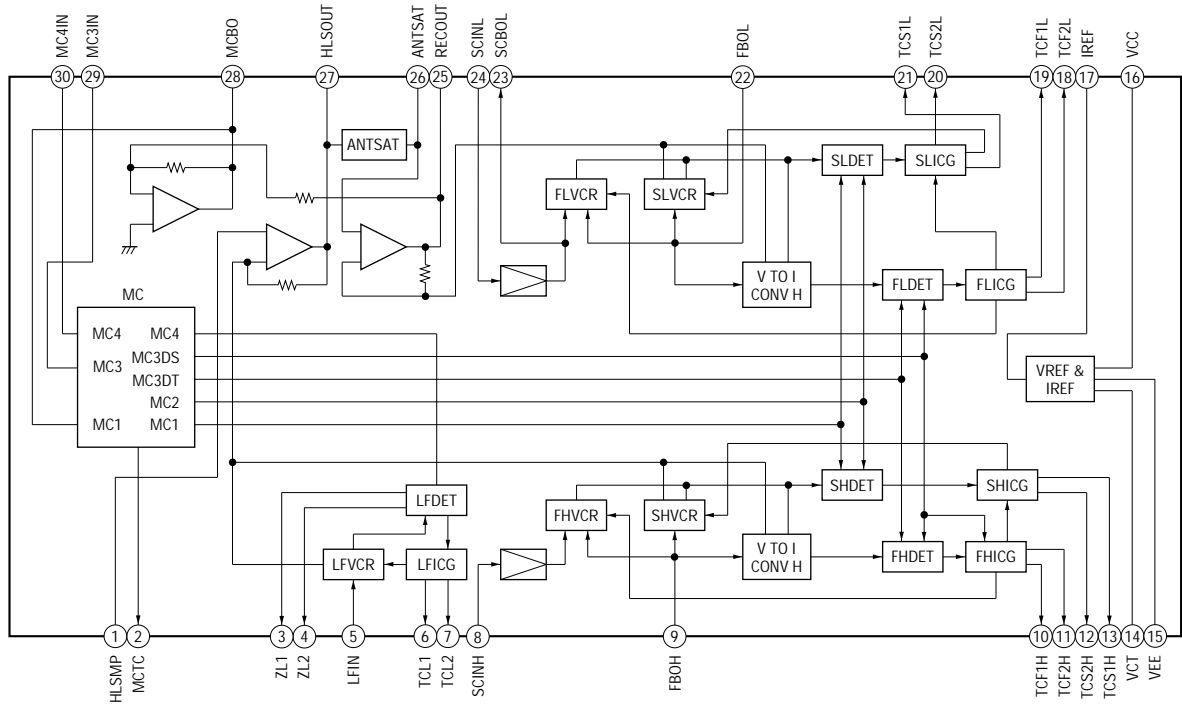


TC-KB920S

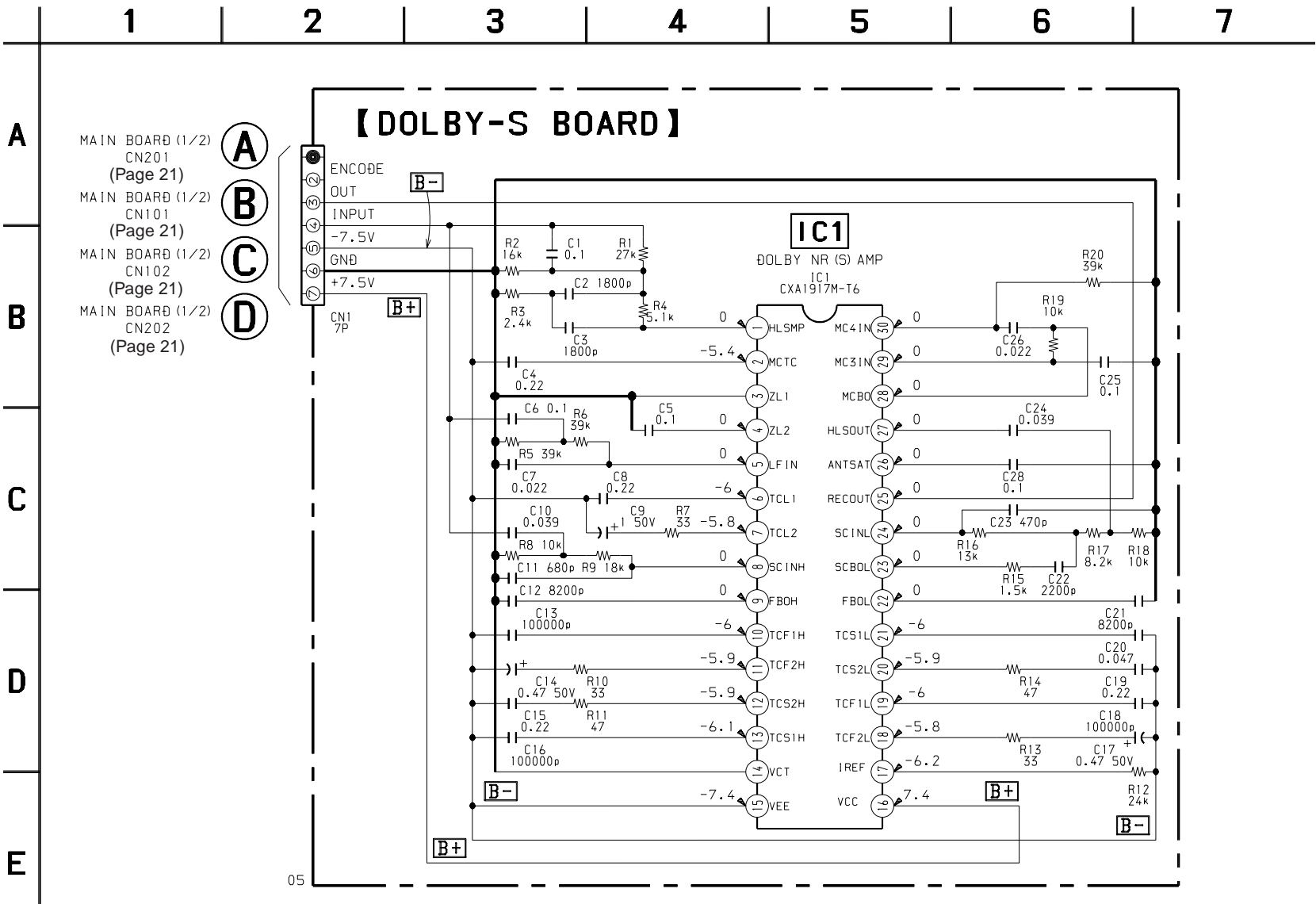
5-7. PRINTED WIRING BOARD – DOLBY-S Section –  
• See page 13 for Circuit Boards Location.



• IC Block Diagram  
IC1 CXA1917AM-T6 (DOLBY-S BOARD)

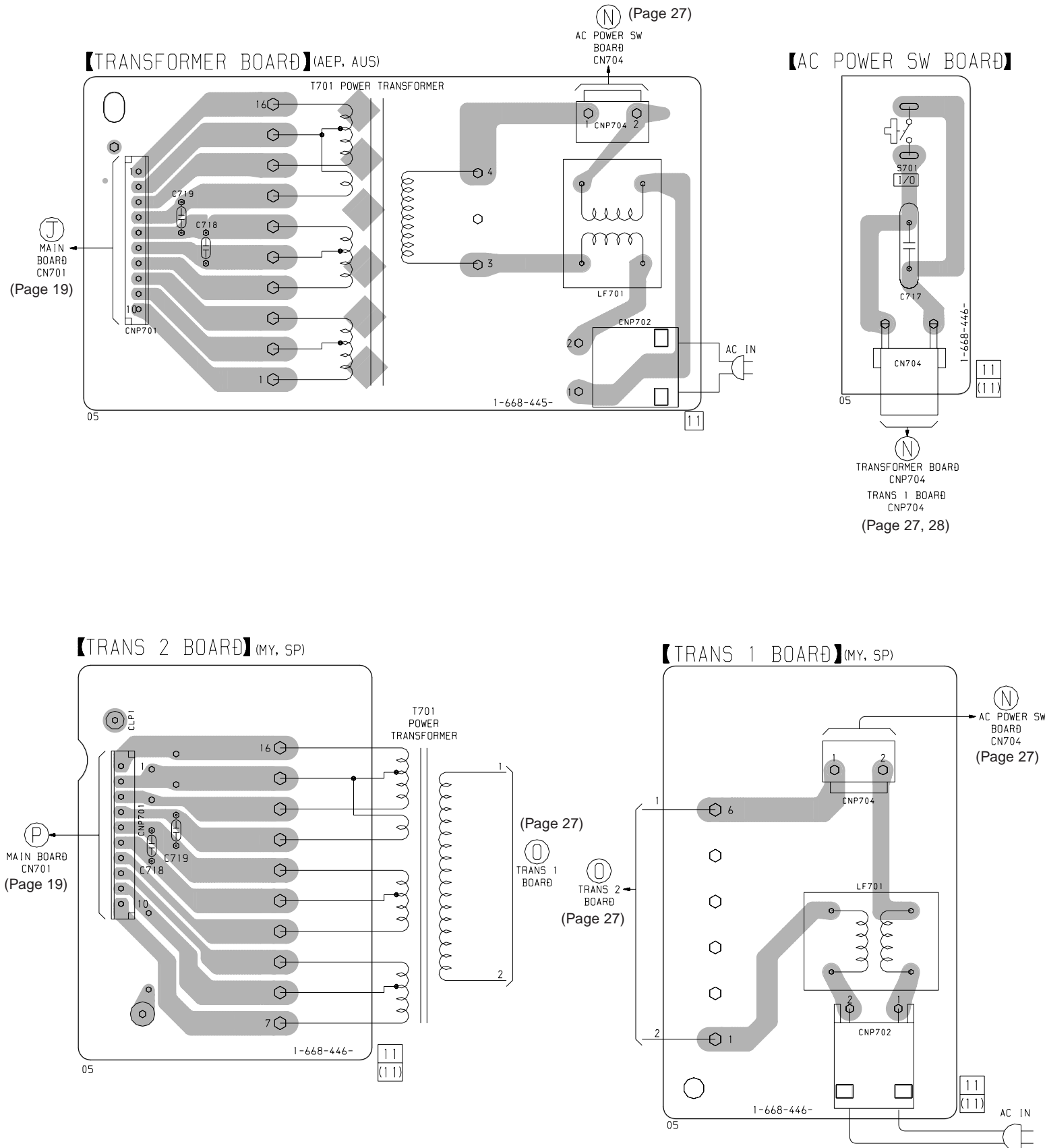


5-8. SCHEMATIC DIAGRAM – DOLBY-S Section –

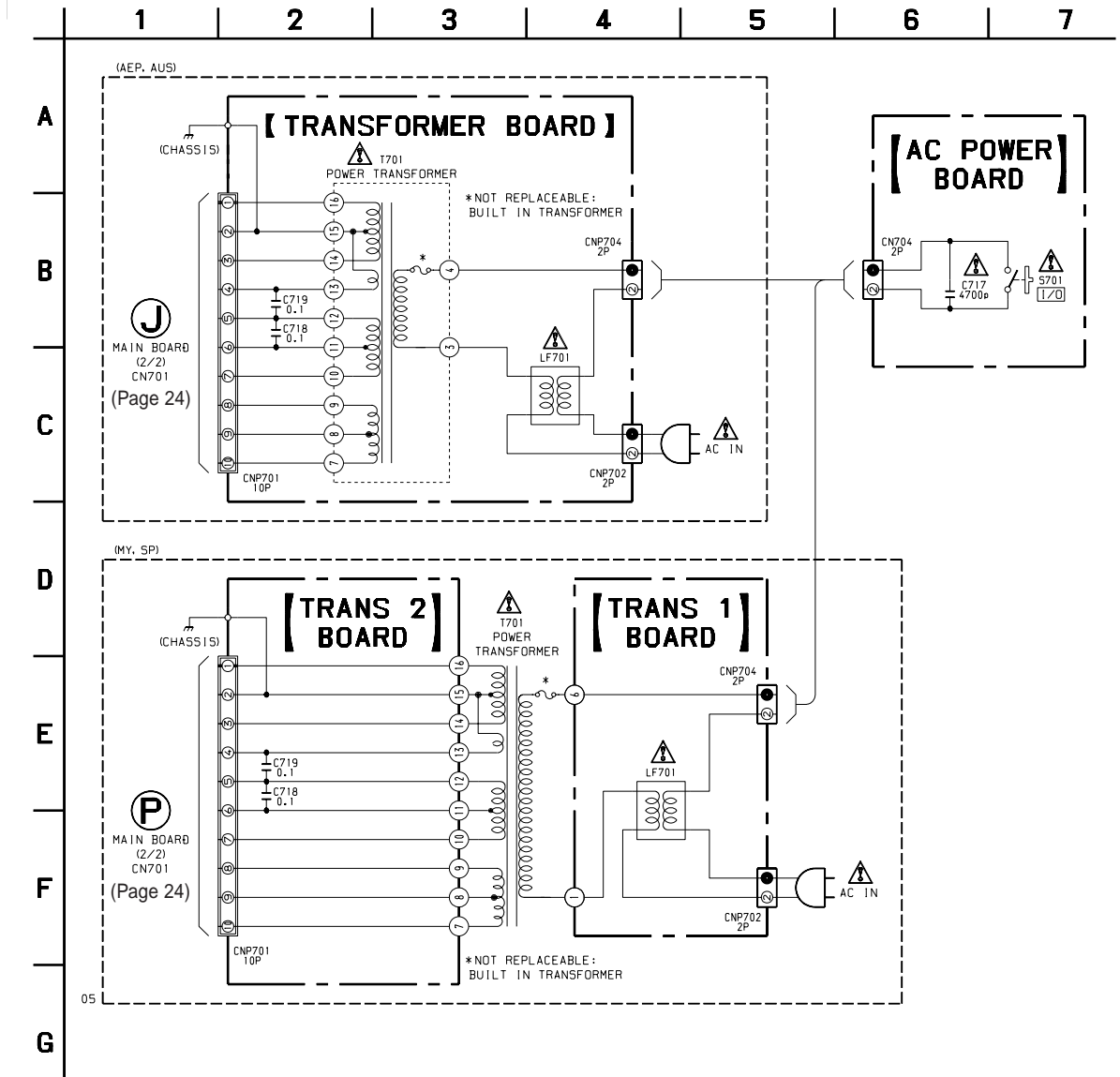


5-9. PRINTED WIRING BOARDS – POWER Section –

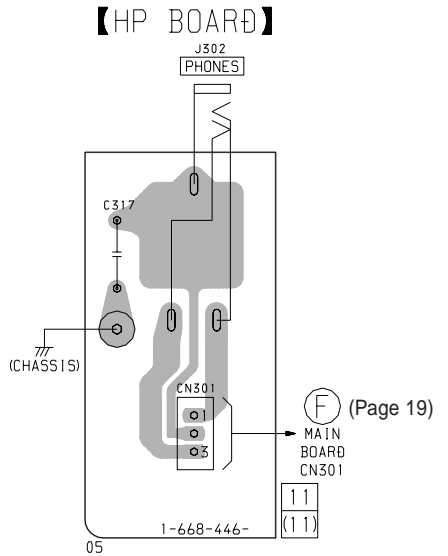
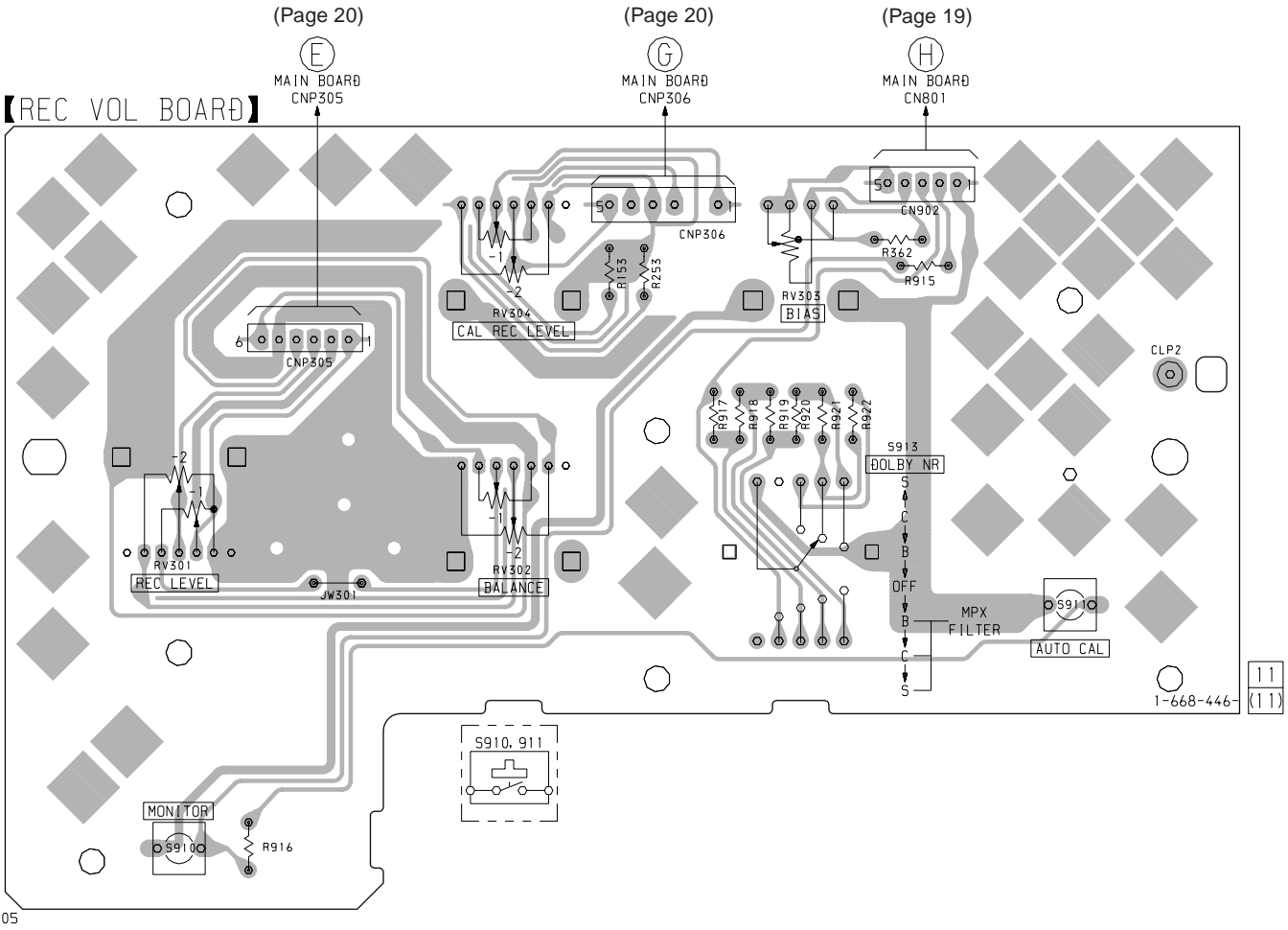
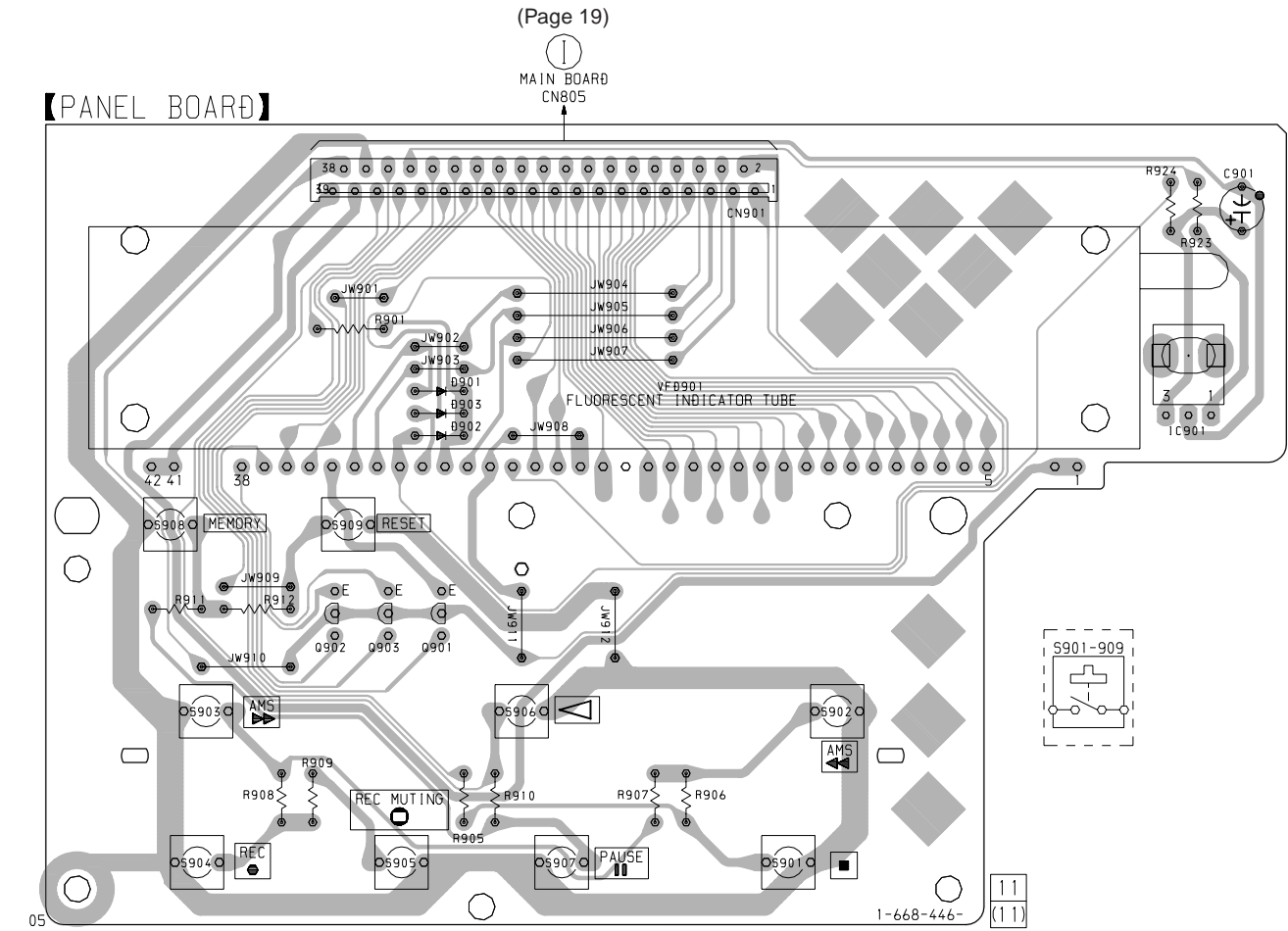
• See page 13 for Circuit Boards Location.

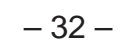


5-10. SCHEMATIC DIAGRAM – POWER Section –



The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.





5-13. IC PIN FUNCTION DESCRIPTION

• MAIN BOARD IC801 M38172M4-171FP (SYSTEM CONTROLLER)

| Pin No. | Pin Name                | I/O | Function   |
|---------|-------------------------|-----|--|
| 1       | T.REEL                  | I   | Take-up reel rotation pulse input from the rotation detect sensor (IC82)   |
| 2       | S.REEL                  | I   | Supply reel rotation pulse input from the rotation detect sensor (IC81)  |
| 3       | METER.LCH               | I   | Signal input for the level meter drive (L-ch)  |
| 4       | METER.RCH               | I   | Signal input for the level meter drive (R-ch)  |
| 5       | AMS.IN                  | I   | Auto music sensor signal input terminal “H”: AMS detect  |
| 6       | DOOR/STOP.SW            | I   | Mechanism stop detect switch (S81) input terminal  |
| 7       | CLOSE.SW                | I   | Not used (fixed at “H”)  |
| 8       | OPEN.SW                 | I   | Not used (fixed at “H”)  |
| 9       | CAM.SW3                 | I   | Not used (fixed at “H”)  |
| 10      | CAM.SW2                 | I   | Not used (fixed at “H”)  |
| 11      | CAM.SW1                 | I   | Not used (fixed at “H”)  |
| 12      | CAM.SW0                 | I   | Not used (fixed at “H”)  |
| 13      | CAP.M ON/OFF            | O   | Capstan motor (M902) on/off control signal output terminal “H”: motor on   |
| 14      | ASIST.M.UP              | O   | Assist motor drive signal output terminal Not used (pull down)   |
| 15      | ASIST.M.DOWN            | O   | Assist motor drive signal output terminal Not used (pull down)   |
| 16      | REEL.M.FWD              | O   | Reel motor (M901) drive signal output to the BA6219B (IC803)   |
| 17      | REEL.M.REV              | O   | Reel motor (M901) drive signal output to the BA6219B (IC803)   |
| 18      | EJECT.V (6.5V)          | O   | Reel motor (M901) eject control signal output terminal “H” active  |
| 19      | FF/REW.V (4.4V)         | O   | Reel motor (M901) FF/REW control signal output terminal “H” active   |
| 20      | PLAY.V (2.5V)           | O   | Reel motor (M901) play control signal output terminal “H” active   |
| 21      | TYPE.IV                 | I   | Metal detect switch (S83) input terminal “H”: metal  |
| 22      | HALF.SW                 | I   | Half detect switch input terminal Not used (fixed at “H”)  |
| 23      | TYPE.II                 | I   | CrO <sub>2</sub> detect switch (S82) input terminal “H”: CrO <sub>2</sub>  |
| 24      | TAB.SW                  | I   | Not used (fixed at “H”)  |
| 25      | POWER.IN                | I   | AC in detect signal input terminal “H”: AC in  |
| 26      | SIRCS.IN                | I   | Sircs signal input from the remote control receiver (IC901)  |
| 27      | RESET                   | I   | System reset signal input from the reset signal generator (IC804) “L”: reset<br>“L” is input for several 100 msec after power on, then it changes to “H” |
| 28      | XCIN                    | I   | Sub system clock input terminal Not used (fixed at “L”)  |
| 29      | XCOUT                   | O   | Sub system clock output terminal Not used (open)   |
| 30      | XIN                     | I   | Main system clock input terminal (4 MHz)   |
| 31      | XOUT                    | O   | Main system clock output terminal (4 MHz)  |
| 32      | VSS                     | —   | Ground terminal  |
| 33      | VER.200/190             | I   | Setting terminal for the version (fixed at “L”)  |
| 34      | POWER.OUT               | O   | Power on/off control signal output terminal “L”: power on Not used (open)  |
| 35      | MONITOR.TAPE/<br>SOURCE | O   | Audio monitor selection signal output terminal “H”: tape monitor, “L”: source monitor  |
| 37      | OSC H/L                 | O   | Calibration tone frequency high/low control signal output terminal “L”: frequency low  |
| 38      | CAL.ON/OFF              | O   | Calibration tone on/off control signal output terminal “H”: on, “L”: off   |
| 39      | REC.M.ON/OFF            | O   | Record muting on/off control signal output to the CXA1598S (IC303)<br>“L”: record muting on  |
| 40      | BIAS.ON/OFF             | O   | Recording bias on/off control signal output terminal “H”: bias on  |
| 41      | DOL.CON                 | O   | Dolby B/C type or dolby on/off selection signal output to the CXA1563S (IC302, 307)<br>“H”: dolby C type, “L”: dolby off (center voltage: dolby B type)  |
| 42      | SEG.IV                  | O   | Metal on/off control signal output or segment drive signal output to the fluorescent indicator tube (VFD901) (for TYPE IV light up)                      |

| Pin No. | Pin Name             | I/O | Function  |
|---------|----------------------|-----|---|
| 43      | SEG.DOL.C            | O   | Segment drive signal output to the fluorescent indicator tube (VFD901)<br>(for DOLBY NR C light up)   |
| 44      | SEG.DOL.B            | O   | Segment drive signal output to the fluorescent indicator tube (VFD901)<br>(for DOLBY NR B light up)   |
| 45      | SEG.PROPER           | O   | Segment drive signal output to the fluorescent indicator tube (VFD901)<br>(for TYPE I, II light up)   |
| 46      | SEG.FIL.ON/OFF       | O   | Multiplex filter on/off control signal output or segment drive signal output to the fluorescent indicator tube (VFD901) (for FILTER light up) “H”: multiplex filter on                          |
| 47      | SEG.DOL.S.<br>ON/OFF | O   | Dolby S type on/off selection signal output to the CXA1563S (IC302, 307) or segment drive signal output to the fluorescent indicator tube (VFD901) (for DOLBY NR S light up)<br>“L”: dolby S on |
| 48      | NC                   | O   | Not used (open)   |
| 49      | SEG01                | O   | Segment drive signal output to the fluorescent indicator tube (VFD901)  |
| 50      | SEG02                | O   |   |
| 51      | SEG06                | O   |   |
| 52      | SEG07                | O   |   |
| 53      | SEG03                | O   |   |
| 54      | SEG05                | O   |   |
| 55      | SEG04                | O   |   |
| 56      | SEG08                | O   |   |
| 57      | SEG16                | O   |   |
| 58      | SEG09                | O   |   |
| 59      | SEG10                | O   |   |
| 60      | SEG14                | O   |   |
| 61      | SEG15                | O   |   |
| 62      | SEG11                | O   |   |
| 63      | SEG13                | O   |   |
| 64      | SEG12                | O   |   |
| 65      | SEG.CAL              | O   | Segment drive signal output to the fluorescent indicator tube (VFD901) (for CAL light up)   |
| 66      | SEG.I                | O   | Recording equalizer type I select signal output or segment drive signal output to the fluorescent indicator tube (VFD901) (for TYPE I light up)   |
| 67      | SEG.II               | O   | Recording equalizer type II select signal output or segment drive signal output to the fluorescent indicator tube (VFD901) (for TYPE II light up)   |
| 68      | G5-DISPLAY           | O   | Grid drive signal output to the fluorescent indicator tube (VFD901)   |
| 69      | G4-SEC               | O   |   |
| 70      | G3-MIN               | O   |   |
| 71      | G2-RCH               | O   |   |
| 72      | G1-LCH               | O   |   |
| 73      | VCC                  | —   | Power supply terminal (+5V)   |
| 74      | VEE                  | —   | Power supply terminal (−24V)  |
| 75      | AVSS                 | —   | Ground terminal (for A/D converter)   |
| 76      | VREF                 | I   | Reference voltage (+5V) input terminal  |
| 77      | KEY2                 | I   | Key input terminal (A/D input) (S906 to S909)<br>▷, ■ PAUSE, MEMORY, RESET keys input   |
| 78      | KEY1                 | I   | Key input terminal (A/D input) (S901 to S905)<br>■, AMS ◀◀, AMS ▶▶, ● REC, ○ REC MUTING keys input  |
| 79      | TIMER.SW             | I   | Half detect switch (S86) input terminal   |
| 80      | DOLBY.SW             | I   | DOLBY NR switch (S913) input terminal (A/D input)   |



## SECTION 6

### EXPLODED VIEWS

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.

- Color Indication of Appearance Parts

Example:

KNOB, BALANCE (WHITE) . . . (RED)

$\uparrow$                        $\uparrow$   
 Parts Color    Cabinet's Color

- Abbreviation

AUS : Australian



MY : Malaysia

SP : Singapore

- Items marked “\*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- The mechanical parts with no reference number in the exploded views are not supplied.

- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

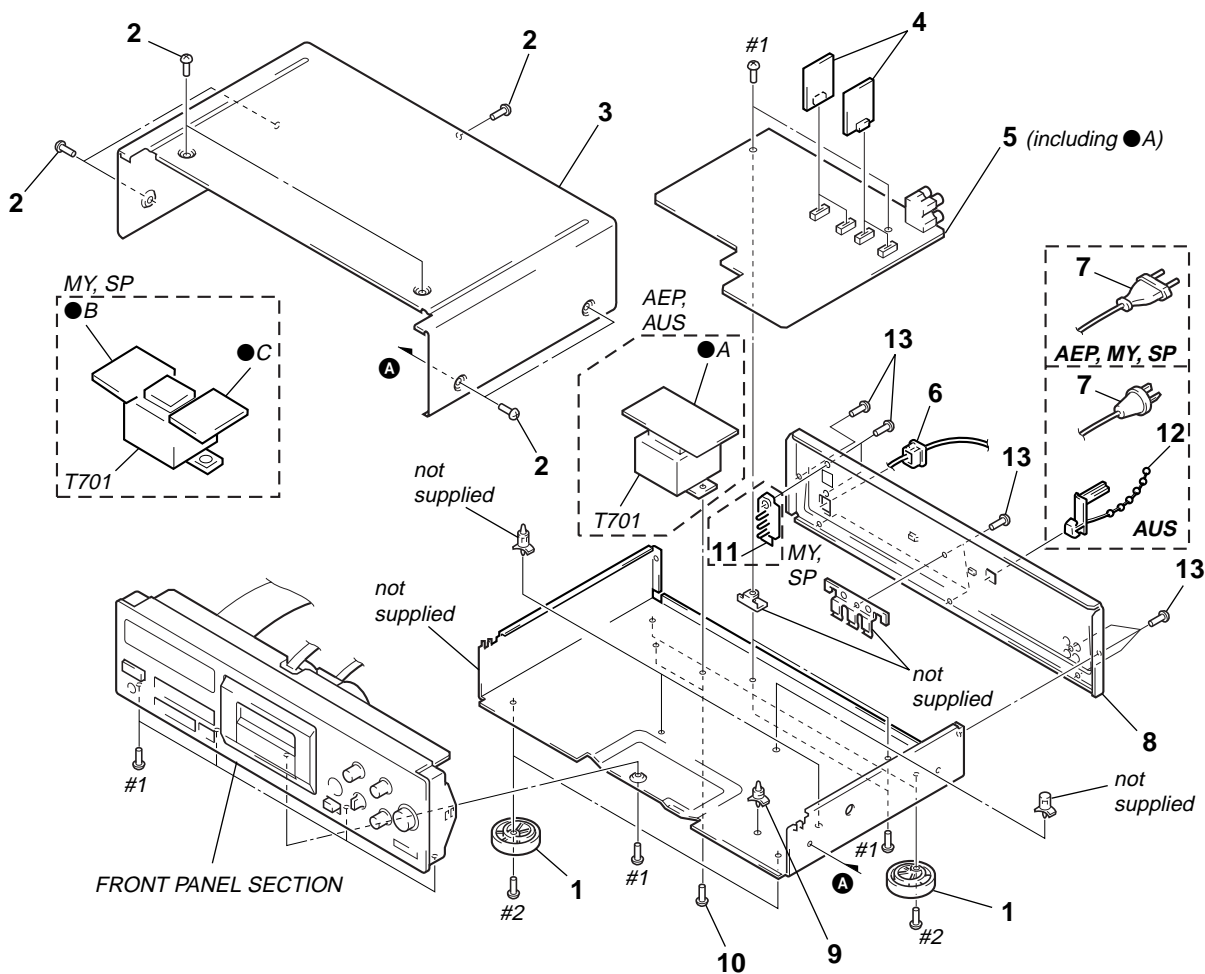
The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

### (1) CASE, CHASSIS SECTION

- A: TRANSFORMER BOARD (AEP, AUS)

- B: TRANS 1 BOARD (MY, SP)

- C: TRANS 2 BOARD (MY, SP)



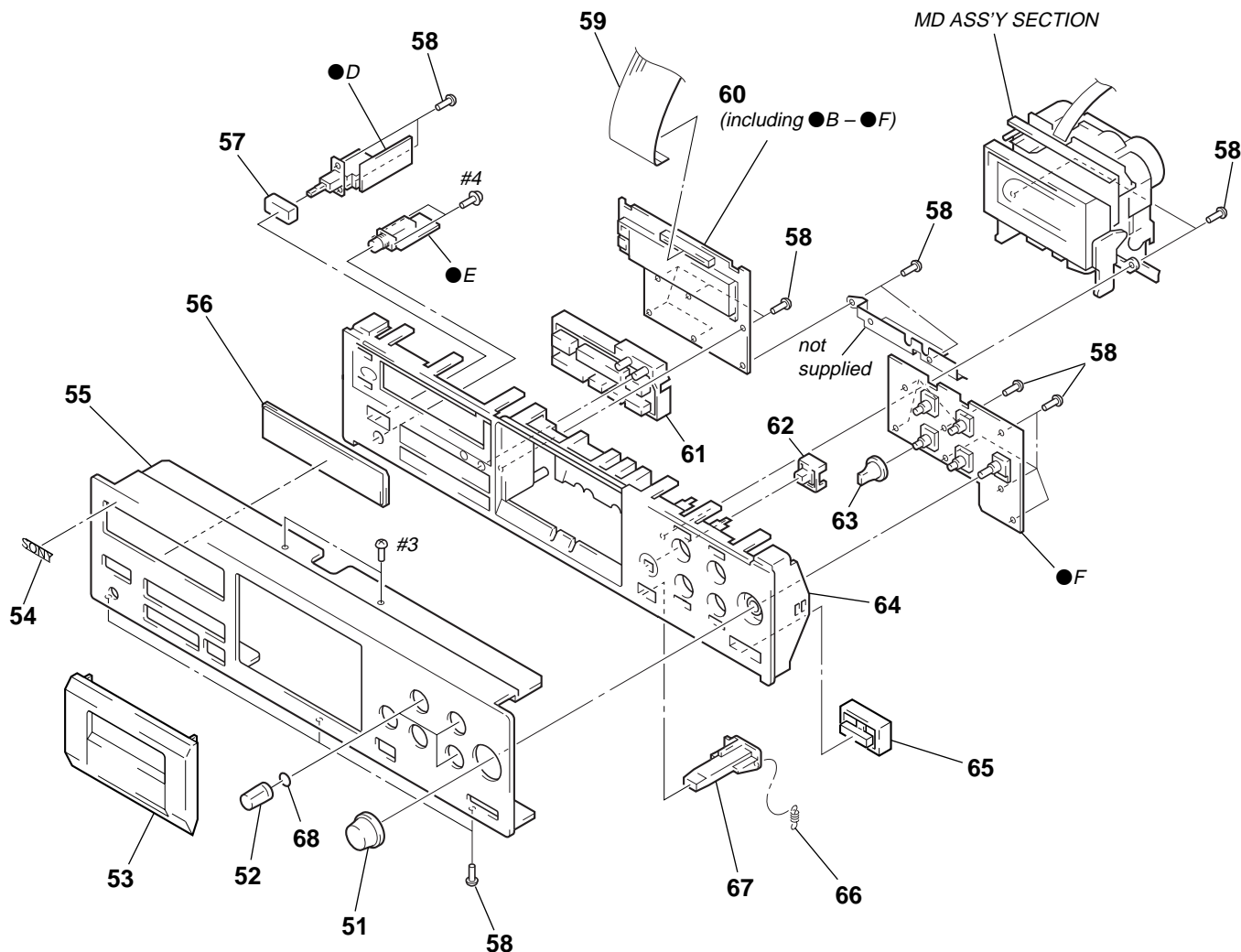
| <u>Ref. No.</u> | <u>Part No.</u> | <u>Description</u>             | <u>Remark</u> | <u>Ref. No.</u> | <u>Part No.</u> | <u>Description</u>              | <u>Remark</u> |
|-----------------|-----------------|--------------------------------|---------------|-----------------|-----------------|---------------------------------|---------------|
| 1               | X-4949-523-1    | FOOT ASSY (F50180S)            |               | * 8             | 3-020-984-01    | PANEL, BACK (AEP)               |               |
| 2               | 3-710-901-11    | SCREW, TAPPING (BLACK)         |               | * 8             | 3-020-984-22    | PANEL, BACK (AUS)               |               |
| 2               | 3-710-901-01    | SCREW, TAPPING (SILVER)        |               | * 8             | 3-020-984-31    | PANEL, BACK (MY,SP)             |               |
| * 3             | 3-021-377-01    | CASE (BLACK)                   |               | * 9             | 3-703-353-02    | SUPPORT, PC BOARD               |               |
| * 3             | 3-021-377-21    | CASE (SILVER)                  |               | 10              | 3-703-249-21    | SCREW, S TIGHT, +PTTWH (M3X8)   |               |
| * 4             | A-2007-481-A    | DOLBY-S BOARD, COMPLETE        |               | △ 11            | 1-692-155-11    | SELECTOR, POWER VOLTAGE (MY,SP) |               |
| * 5             | A-2007-776-A    | MAIN BOARD, COMPLETE (AEP,AUS) |               | 12              | 4-956-370-12    | BAND, PLUG FIXED (AUS)          |               |
| * 5             | A-2007-778-A    | MAIN BOARD, COMPLETE (MY,SP)   |               | 13              | 3-704-515-21    | SCREW (BV/RING)                 |               |
| 6               | 4-966-267-11    | BUSHING (FBS001), CORD         |               | △ T701          | 1-431-668-11    | TRANSFORMER, POWER (AEP)        |               |
| △ 7             | 1-575-651-21    | CORD, POWER (AEP,MY,SP)        |               | △ T701          | 1-431-737-11    | TRANSFORMER, POWER (AUS)        |               |
| △ 7             | 1-696-845-11    | CORD, POWER (AUS)              |               | △ T701          | 1-431-738-11    | TRANSFORMER, POWER (MY,SP)      |               |

## (2) FRONT PANEL SECTION

●D: AC POWER BOARD

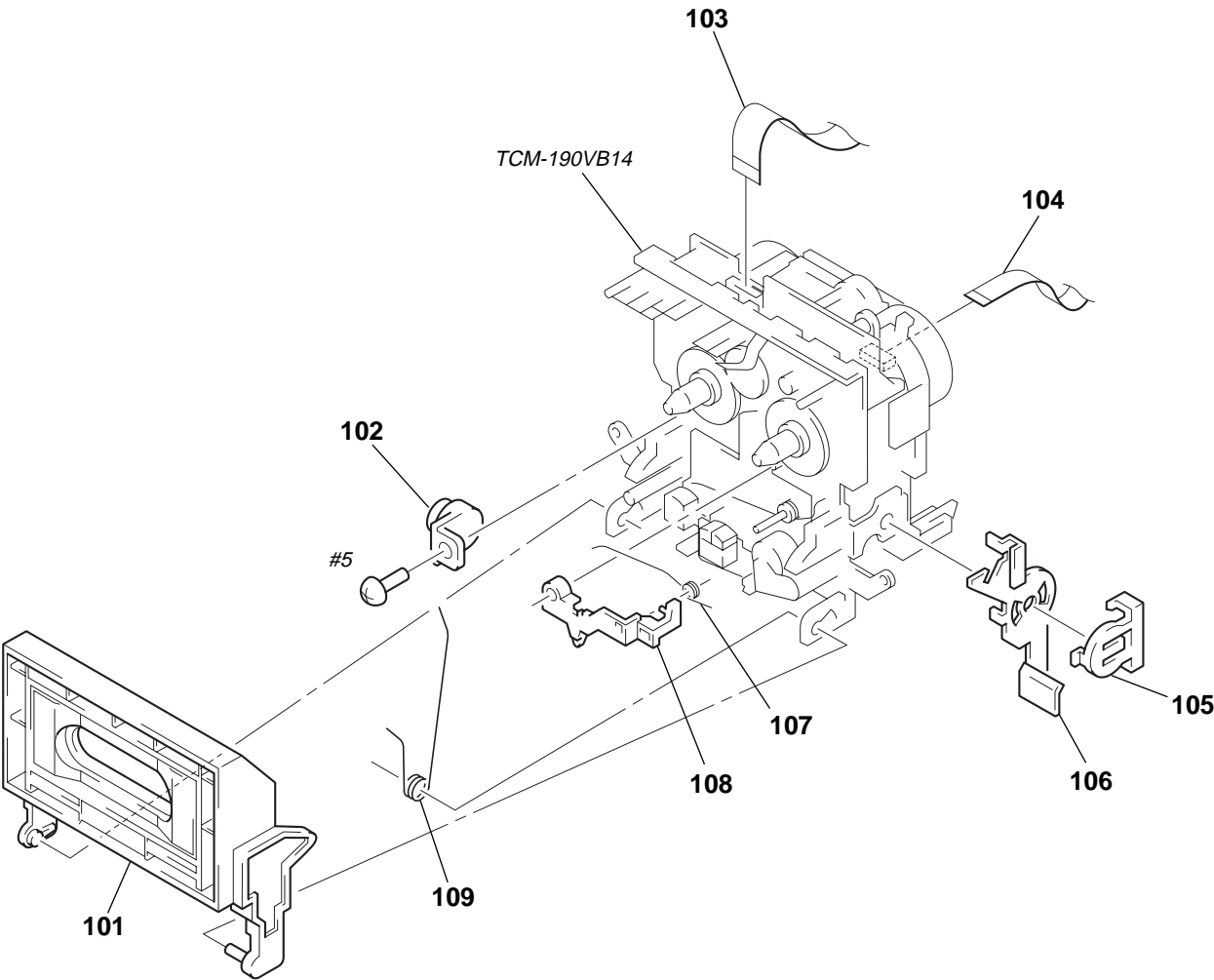
●E: HP BOARD

●F: REC VOL BOARD



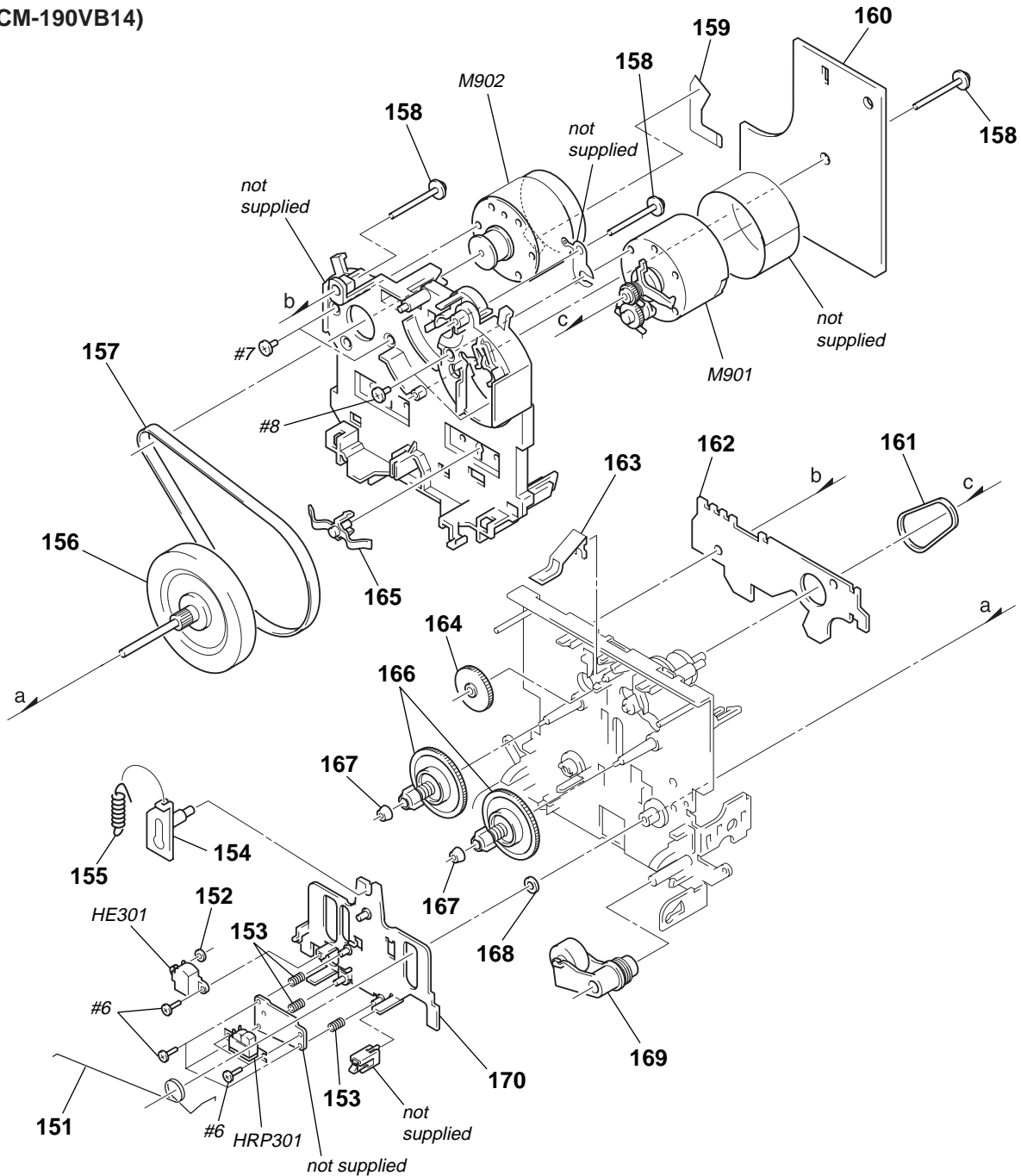
| Ref. No. | Part No.     | Description                     | Remark | Ref. No. | Part No.     | Description                       | Remark |
|----------|--------------|---------------------------------|--------|----------|--------------|-----------------------------------|--------|
| 51       | 3-020-978-01 | KNOB (REC)(BLACK)               |        | * 60     | A-2007-777-A | PANEL BOARD, COMPLETE (MY,SP)     |        |
| 51       | 3-020-978-11 | KNOB (REC)(SILVER)              |        | 61       | 3-020-975-01 | BUTTON (CONTROL)(BLACK)           |        |
| 52       | 3-020-979-01 | KNOB (BALANCE)(BLACK)           |        | 61       | 3-020-975-11 | BUTTON (CONTROL)(SILVER)          |        |
| 52       | 3-020-979-11 | KNOB (BALANCE)(SILVER)          |        | 62       | 3-020-977-01 | BUTTON (AUTO CAL)(BLACK)          |        |
| 53       | X-3374-954-1 | LID ASSY, CASSETTE (BLACK)      |        | 62       | 3-020-977-11 | BUTTON (AUTO CAL)(SILVER)         |        |
| 53       | X-3375-905-1 | LID ASSY, CASSETTE (SILVER)     |        | 63       | 3-933-299-01 | KNOB (DIA. 12)(BLACK)             |        |
| 54       | 4-942-568-41 | EMBLEM (NO.5), SONY             |        | 63       | 3-933-299-11 | KNOB (DIA. 12)(SILVER)            |        |
| 55       | 3-020-971-11 | PANEL, FRONT (BLACK)(AEP)       |        | 64       | X-3375-507-1 | BASE (KB920S) ASSY, PANEL(BLACK)  |        |
| 55       | 3-020-971-31 | PANEL, FRONT (MY,SP,AUS)        |        | 64       | X-3375-906-1 | BASE (KB920S) ASSY, PANEL(SILVER) |        |
| 55       | 3-020-971-41 | PANEL, FRONT (SILVER)(AEP)      |        | 65       | 3-933-296-01 | BUTTON (MONITOR)(BLACK)           |        |
| 56       | 3-020-980-01 | WINDOW (METER)                  |        | 65       | 3-933-296-11 | BUTOON (MONITOR)(SILVER)          |        |
| 57       | 4-922-921-62 | BUTTON (POWER)(BLACK)           |        | 66       | 3-937-169-01 | SPRING, TENSION                   |        |
| 57       | 4-922-921-91 | BUTOON (POWER)(SILVER)          |        | 67       | 3-020-976-01 | BUTTON (EJECT)(BLACK)             |        |
| 58       | 4-951-620-01 | SCREW (2.6X8), +BVTP            |        | 67       | 3-020-976-11 | BUTTON (EJECT)(SILVER)            |        |
| 59       | 1-777-109-11 | WIRE (FLAT TYPE) (39 CORE)      |        | 68       | 3-354-981-11 | SPRING (SUS), RING                |        |
| * 60     | A-2007-775-A | PANEL BOARD, COMPLETE (AEP,AUS) |        |          |              |                                   |        |

(3) MD ASS'Y SECTION



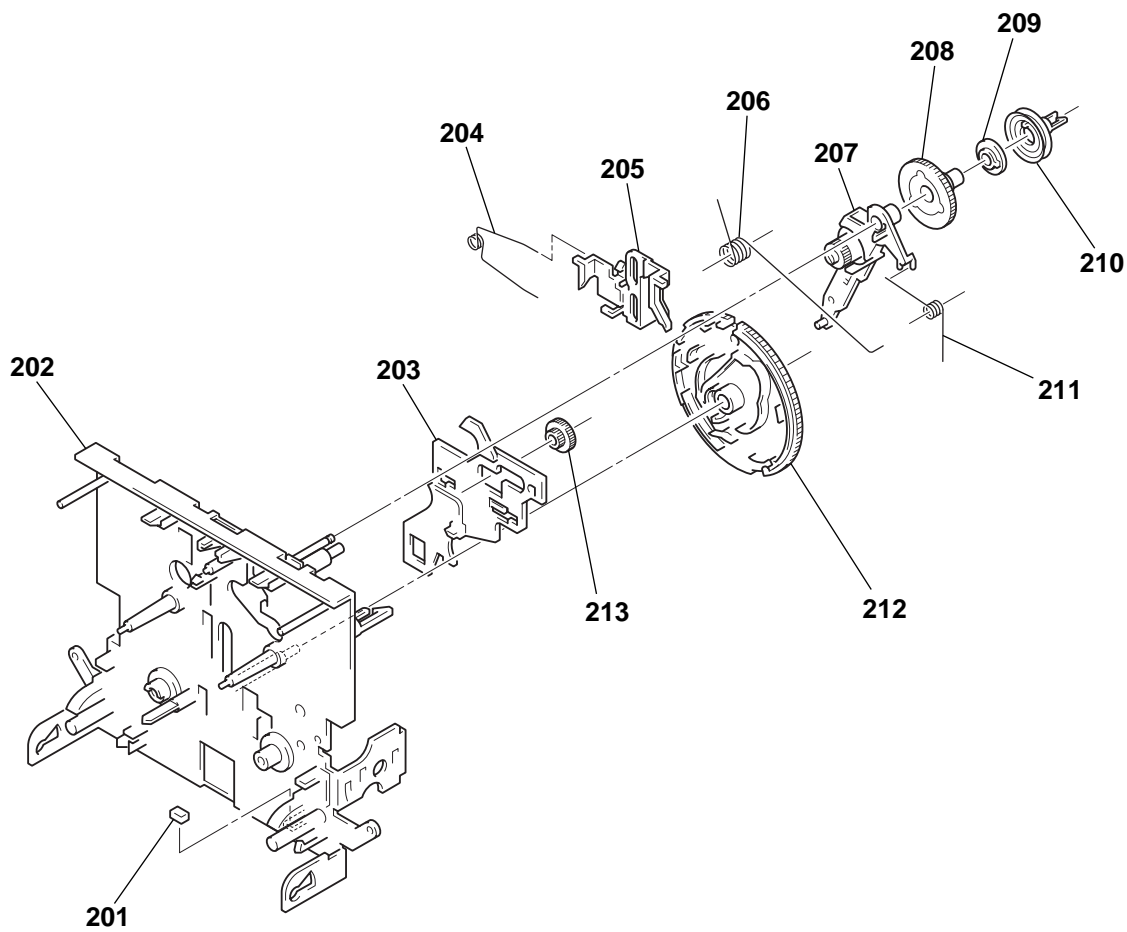
| <u>Ref. No.</u> | <u>Part No.</u> | <u>Description</u>        | <u>Remark</u> | <u>Ref. No.</u> | <u>Part No.</u> | <u>Description</u>          | <u>Remark</u> |
|-----------------|-----------------|---------------------------|---------------|-----------------|-----------------|-----------------------------|---------------|
| 101             | X-3368-119-1    | HOLDER (R) ASSY, CASSETTE |               | * 106           | 3-354-954-01    | LEVER (LOCK LEVER R)        |               |
| 102             | 3-354-963-01    | DAMPER                    |               | 107             | 3-354-962-01    | SPRING (EJ SAFTY SPRING R)  |               |
| 103             | 1-769-915-11    | WIRE (FLAT TYPE)(9 CORE)  |               | 108             | 3-354-956-01    | LEVER (EJ SAFTY LEVER R)    |               |
| 104             | 1-765-314-11    | WIRE (FLAT TYPE)(7 CORE)  |               | 109             | 3-354-960-01    | SPRING (LOADING R), TORSION |               |
| 105             | 3-354-957-01    | JOINT (LOCK LEVER)        |               |                 |                 |                             |               |

(4) MECHANISM DECK SECTION-1  
(TCM-190VB14)



| Ref. No. | Part No.     | Description                    | Remark | Ref. No. | Part No.     | Description                     | Remark |
|----------|--------------|--------------------------------|--------|----------|--------------|---------------------------------|--------|
| 151      | 3-911-014-01 | SPRING, TORSION                |        | 163      | 3-359-430-01 | SPRING(CASSETTE RETAINER),LEAF  |        |
| 152      | 3-701-437-01 | WASHER                         |        | 164      | 3-359-424-01 | GEAR (REV GEAR)                 |        |
| 153      | 3-356-659-11 | SPRING (RPH), COMPRESSION      |        | 165      | 3-575-321-00 | RETAINER, THRUST, CAPSTAN       |        |
| * 154    | X-3374-992-1 | SLIDER (LIMITER) ASSY          |        | 166      | X-3366-971-1 | TABLE ASSY (B), REEL            |        |
| 155      | 3-363-868-01 | SPRING (HEAD CHASSIS), TENSION |        | 167      | 3-362-308-01 | CAP (REEL)                      |        |
| 156      | X-3368-368-1 | FLYWHEEL (FWD) COMPLETE ASSY   |        | 168      | 3-356-713-01 | WASHER                          |        |
| 157      | 3-937-332-01 | BELT (CAPSTAN)                 |        | 169      | X-3366-047-1 | LEVER (PINCH F) ASSY            |        |
| 158      | 3-359-414-01 | SCREW (+PTPWH 2X23)            |        | * 170    | X-3369-024-1 | SLIDER (HEAD CHASSIS) ASSY      |        |
| 159      | 1-638-983-11 | MOTOR FLEXIBLE BOARD           |        | HE301    | 1-543-673-11 | HEAD, MAGNETIC (ERASE)          |        |
| * 160    | 1-634-840-21 | AUDIO BOARD                    |        | HRP301   | 1-543-733-11 | HEAD,MAGNETIC (RECORD/PLAYBACK) |        |
| 161      | 3-359-466-01 | BELT (FR), SQUARE              |        | M901     | X-3363-501-2 | MOTOR ASSY (REEL)               |        |
| * 162    | 1-634-841-14 | LEAF SW BOARD                  |        | M902     | X-3374-302-1 | MOTOR ASSY (CAPSTAN)            |        |

(5) MECHANISM DECK SECTION-2  
(TCM-190VB14)



| <u>Ref. No.</u> | <u>Part No.</u> | <u>Description</u>             | <u>Remark</u> | <u>Ref. No.</u> | <u>Part No.</u> | <u>Description</u>       | <u>Remark</u> |
|-----------------|-----------------|--------------------------------|---------------|-----------------|-----------------|--------------------------|---------------|
| 201             | 3-359-469-01    | SPACER                         |               | 208             | 3-359-419-11    | GEAR (FR GEAR)           |               |
| 202             | X-3368-719-2    | CHASSIS(ONE)ASSY, MECHANICAL   |               | 209             | 3-359-421-01    | CLUTCH (REEL DISK)       |               |
| 203             | 3-359-415-11    | SLIDER (TRIGGER SLIDER)        |               | 210             | 3-359-418-01    | PULLEY (FR PULLEY)       |               |
| 204             | 3-359-454-01    | SPRING, TORSION                |               | 211             | 3-924-185-11    | SPRING (FR ARM), TORSION |               |
| 205             | 3-359-429-11    | SLIDER (BRAKE PLATE)           |               | 212             | 3-936-483-01    | GEAR (CAM GEAR)          |               |
| 206             | 3-359-456-01    | SPRING(TRIGGER SPRING),TORSION |               | 213             | 3-359-448-01    | GEAR (TRIGGER)           |               |
| 207             | X-3366-569-1    | ARM ASSY, FR                   |               |                 |                 |                          |               |

## AC POWER SW

## AUDIO

## DOLBY-S

SECTION 7  
ELECTRICAL PARTS LIST

## NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS  
All resistors are in ohms.  
METAL: Metal-film resistor.  
METAL OXIDE: Metal oxide-film resistor.  
F: nonflammable
- Abbreviation  
AUS : Australian  
MY : Malaysia  
SP : Singapore

- Items marked “\*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS  
In each case, u:  $\mu$ , for example:  
uA. . :  $\mu$ A. .      uPA. . :  $\mu$ PA. .  
uPB. . :  $\mu$ PB. .    uPC. . :  $\mu$ PC. .  
uPD. . :  $\mu$ PD. .
- CAPACITORS  
uF:  $\mu$ F
- COILS  
uH:  $\mu$ H

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

| Ref. No.      | Part No.     | Description   | Remark            | Ref. No. | Part No.     | Description          | Remark            |
|---------------|--------------|---|-------------------|----------|--------------|----------------------|-------------------|
|               |              | AC POWER SW BOARD<br>*****<br>(Included in PANEL BOARD, COMPLETE) |                   |          |              |                      |                   |
|               |              | < CAPACITOR >   |                   |          |              |                      |                   |
| $\Delta$ C717 | 1-117-703-11 | CERAMIC   | 0.0047uF 99% 250V | C6       | 1-136-165-00 | FILM                 | 0.1uF 5% 50V      |
|               |              | < CONNECTOR >   |                   | C7       | 1-137-372-11 | FILM                 | 0.022uF 5% 50V    |
| CN704         | 1-568-226-11 | PIN, CONNECTOR 2P   |                   | C8       | 1-164-222-11 | CERAMIC CHIP         | 0.22uF 25V        |
|               |              | < SWITCH >  |                   | C9       | 1-126-301-11 | ELECT                | 1uF 20% 50V       |
| $\Delta$ S701 | 1-762-581-11 | SWITCH, AC POWER PUSH (1 KEY) (I/O)                               |                   | C10      | 1-137-442-11 | FILM                 | 0.039uF 5% 50V    |
|               |              | *****   |                   |          |              |                      |                   |
| *             | 1-634-840-21 | AUDIO BOARD<br>*****  |                   | C11      | 1-163-007-11 | CERAMIC CHIP         | 680PF 10% 50V     |
|               |              | < CAPACITOR >   |                   | C12      | 1-164-717-11 | CERAMIC CHIP         | 0.0082uF 5% 50V   |
| C71           | 1-124-903-11 | ELECT   | 1uF 20% 50V       | C13      | 1-163-038-00 | CERAMIC CHIP         | 0.1uF 25V         |
| C72           | 1-124-903-11 | ELECT   | 1uF 20% 50V       | C14      | 1-124-465-00 | ELECT                | 0.47uF 20% 50V    |
|               |              | < CONNECTOR >   |                   | C15      | 1-164-222-11 | CERAMIC CHIP         | 0.22uF 25V        |
| * CNP71       | 1-564-705-11 | PIN, CONNECTOR (SMALL TYPE) 3P                                    |                   | C16      | 1-163-038-00 | CERAMIC CHIP         | 0.1uF 25V         |
| CNP72         | 1-764-902-11 | CONNECTOR, FFC/FPC 4P   |                   | C17      | 1-124-465-00 | ELECT                | 0.47uF 20% 50V    |
| * CNP73       | 1-568-826-11 | SOCKET, CONNECTOR 7P  |                   | C18      | 1-163-038-00 | CERAMIC CHIP         | 0.1uF 25V         |
|               |              | < RESISTOR >  |                   | C19      | 1-164-222-11 | CERAMIC CHIP         | 0.22uF 25V        |
| $\Delta$ R71  | 1-249-406-11 | CARBON  | 120 5% 1/4W F     | C20      | 1-163-035-00 | CERAMIC CHIP         | 0.047uF 50V       |
|               |              | < VARIABLE RESISTOR >   |                   |          |              |                      |                   |
| RV71          | 1-241-761-11 | RES, ADJ, CARBON 1K   |                   | C21      | 1-164-717-11 | CERAMIC CHIP         | 0.0082uF 5% 50V   |
|               |              | *****   |                   | C22      | 1-164-161-11 | CERAMIC CHIP         | 0.0022uF 10% 100V |
| *             | A-2007-481-A | DOLBY-S BOARD, COMPLETE<br>*****                                  |                   | C23      | 1-163-005-11 | CERAMIC CHIP         | 470PF 10% 50V     |
|               |              | < CAPACITOR >   |                   | C24      | 1-137-442-11 | FILM                 | 0.039uF 5% 50V    |
| C1            | 1-136-165-00 | FILM  | 0.1uF 5% 50V      | C25      | 1-136-165-00 | FILM                 | 0.1uF 5% 50V      |
| C2            | 1-163-012-00 | CERAMIC CHIP  | 0.0018uF 10% 50V  |          |              |                      |                   |
| C3            | 1-163-012-00 | CERAMIC CHIP  | 0.0018uF 10% 50V  | C26      | 1-137-372-11 | FILM                 | 0.022uF 5% 50V    |
| C4            | 1-164-222-11 | CERAMIC CHIP  | 0.22uF 25V        | C28      | 1-163-038-00 | CERAMIC CHIP         | 0.1uF 25V         |
| C5            | 1-136-165-00 | FILM  | 0.1uF 5% 50V      |          |              |                      |                   |
|               |              |   |                   |          |              | < CONNECTOR >        |                   |
|               |              |   |                   | CN1      | 1-695-092-11 | SOCKET, CONNECTOR 7P |                   |
|               |              |   |                   |          |              | < IC >               |                   |
|               |              |   |                   | IC1      | 8-752-076-30 | IC CXA1917AM-T6      |                   |
|               |              |   |                   |          |              | < SHORT CHIP >       |                   |
|               |              |   |                   | J1       | 1-216-296-00 | SHORT (CHIP) 0       |                   |
|               |              |   |                   | J2       | 1-216-296-00 | SHORT (CHIP) 0       |                   |
|               |              |   |                   | J3       | 1-216-296-00 | SHORT (CHIP) 0       |                   |
|               |              |   |                   |          |              | < RESISTOR >         |                   |
|               |              |   |                   | R1       | 1-216-685-11 | METAL CHIP           | 27K 0.5% 1/10W    |
|               |              |   |                   | R2       | 1-208-811-11 | RES,CHIP             | 16K 2% 1/10W      |
|               |              |   |                   | R3       | 1-208-791-11 | RES,CHIP             | 2.4K 2% 1/10W     |
|               |              |   |                   | R4       | 1-208-799-11 | RES,CHIP             | 5.1K 2% 1/10W     |
|               |              |   |                   | R5       | 1-216-689-11 | METAL CHIP           | 39K 0.5% 1/10W    |

| Ref. No.                            | Part No.     | Description                           |         |      | Remark |
|-------------------------------------|--------------|---------------------------------------|---------|------|--------|
| R6                                  | 1-216-689-11 | METAL CHIP                            | 39K     | 0.5% | 1/10W  |
| R7                                  | 1-216-615-11 | METAL CHIP                            | 33      | 0.5% | 1/10W  |
| R8                                  | 1-208-462-41 | RES,CHIP                              | 10K     | 2%   | 1/10W  |
| R9                                  | 1-208-812-11 | RES,CHIP                              | 18K     | 2%   | 1/10W  |
| R10                                 | 1-216-615-11 | METAL CHIP                            | 33      | 0.5% | 1/10W  |
| R11                                 | 1-216-619-11 | METAL CHIP                            | 47      | 0.5% | 1/10W  |
| R12                                 | 1-216-684-11 | METAL CHIP                            | 24K     | 0.5% | 1/10W  |
| R13                                 | 1-216-615-11 | METAL CHIP                            | 33      | 0.5% | 1/10W  |
| R14                                 | 1-216-619-11 | METAL CHIP                            | 47      | 0.5% | 1/10W  |
| R15                                 | 1-216-655-11 | METAL CHIP                            | 1.5K    | 0.5% | 1/10W  |
| R16                                 | 1-216-678-11 | METAL CHIP                            | 13K     | 0.5% | 1/10W  |
| R17                                 | 1-216-673-11 | METAL CHIP                            | 8.2K    | 0.5% | 1/10W  |
| R18                                 | 1-208-462-41 | RES,CHIP                              | 10K     | 2%   | 1/10W  |
| R19                                 | 1-208-462-41 | RES,CHIP                              | 10K     | 2%   | 1/10W  |
| R20                                 | 1-216-689-11 | METAL CHIP                            | 39K     | 0.5% | 1/10W  |
| *****                               |              |                                       |         |      |        |
| HP BOARD                            |              |                                       |         |      |        |
| *****                               |              |                                       |         |      |        |
| (Included in PANEL BOARD, COMPLETE) |              |                                       |         |      |        |
| < CAPACITOR >                       |              |                                       |         |      |        |
| C317                                | 1-161-494-00 | CERAMIC                               | 0.022uF |      | 25V    |
| < JACK >                            |              |                                       |         |      |        |
| J302                                | 1-568-519-41 | JACK, LARGE TYPE (PHONES)             |         |      |        |
| *****                               |              |                                       |         |      |        |
| *                                   | 1-634-841-14 | LEAF SW BOARD                         |         |      |        |
| *****                               |              |                                       |         |      |        |
| < CONNECTOR >                       |              |                                       |         |      |        |
| * CNP81                             | 1-568-852-11 | SOCKET, CONNECTOR 9P                  |         |      |        |
| < IC >                              |              |                                       |         |      |        |
| IC81                                | 8-749-924-10 | IC PHOTO REFLECTOR NJL5165K-B(H1)     |         |      |        |
| IC82                                | 8-749-924-10 | IC PHOTO REFLECTOR NJL5165K-B(H1)     |         |      |        |
| < RESISTOR >                        |              |                                       |         |      |        |
| R81                                 | 1-249-414-11 | CARBON                                | 560     | 5%   | 1/4W   |
| R83                                 | 1-247-834-11 | CARBON                                | 1.3K    | 5%   | 1/4W   |
| R84                                 | 1-249-417-11 | CARBON                                | 1K      | 5%   | 1/4W   |
| R85                                 | 1-249-408-11 | CARBON                                | 180     | 5%   | 1/4W   |
| R86                                 | 1-249-408-11 | CARBON                                | 180     | 5%   | 1/4W   |
| < SWITCH >                          |              |                                       |         |      |        |
| S81                                 | 1-571-958-11 | SWITCH, PUSH (1 KEY) (MECHANISM STOP) |         |      |        |
| S82                                 | 1-571-281-21 | SWITCH, LEAF (70u)                    |         |      |        |
| S83                                 | 1-571-281-21 | SWITCH, LEAF (METAL)                  |         |      |        |
| S84                                 | 1-571-281-21 | SWITCH, LEAF (REC)                    |         |      |        |
| S86                                 | 1-571-281-21 | SWITCH, LEAF (HALF)                   |         |      |        |
| *****                               |              |                                       |         |      |        |
| *                                   | A-2007-776-A | MAIN BOARD, COMPLETE (AEP, AUS)       |         |      |        |
| *****                               |              |                                       |         |      |        |
| (Including TRANSFORMER BOARD)       |              |                                       |         |      |        |
| *                                   | A-2007-778-A | MAIN BOARD, COMPLETE (MY, SP)         |         |      |        |
| *****                               |              |                                       |         |      |        |
|                                     | 7-685-871-01 | SCREW +BVTT                           | 3X6 (S) |      |        |

| Ref. No.      | Part No.     | Description | Remark   |     |      |
|---------------|--------------|-------------|----------|-----|------|
| < CAPACITOR > |              |             |          |     |      |
| C101          | 1-126-963-11 | ELECT       | 4.7uF    | 20% | 50V  |
| C102          | 1-106-353-00 | MYLAR       | 0.0027uF | 5%  | 50V  |
| C103          | 1-136-173-00 | FILM        | 0.47uF   | 5%  | 50V  |
| C104          | 1-126-964-11 | ELECT       | 10uF     | 20% | 50V  |
| C105          | 1-136-165-00 | FILM        | 0.1uF    | 5%  | 50V  |
| C106          | 1-136-163-00 | FILM        | 0.068uF  | 5%  | 50V  |
| C107          | 1-126-964-11 | ELECT       | 10uF     | 20% | 50V  |
| C110          | 1-126-959-11 | ELECT       | 0.47uF   | 20% | 50V  |
| C111          | 1-126-964-11 | ELECT       | 10uF     | 20% | 50V  |
| C112          | 1-126-963-11 | ELECT       | 4.7uF    | 20% | 50V  |
| C113          | 1-137-428-11 | FILM        | 180PF    | 5%  | 50V  |
| C114          | 1-136-935-11 | FILM        | 22PF     | 5%  | 630V |
| C115          | 1-137-429-11 | FILM        | 270PF    | 5%  | 50V  |
| C116          | 1-130-474-00 | MYLAR       | 0.0018uF | 5%  | 50V  |
| C117          | 1-130-487-00 | MYLAR       | 0.022uF  | 5%  | 50V  |
| C118          | 1-107-714-11 | ELECT       | 10uF     | 20% | 16V  |
| C119          | 1-102-518-11 | CERAMIC     | 33PF     | 5%  | 50V  |
| C120          | 1-130-488-00 | MYLAR       | 0.027uF  | 5%  | 50V  |
| C121          | 1-126-961-11 | ELECT       | 2.2uF    | 20% | 50V  |
| C122          | 1-130-483-00 | MYLAR       | 0.01uF   | 5%  | 50V  |
| C123          | 1-130-487-00 | MYLAR       | 0.022uF  | 5%  | 50V  |
| C124          | 1-130-491-00 | MYLAR       | 0.047uF  | 5%  | 50V  |
| C125          | 1-136-803-11 | FILM        | 560PF    | 5%  | 630V |
| C126          | 1-130-468-00 | MYLAR       | 560PF    | 5%  | 50V  |
| C127          | 1-136-433-11 | FILM        | 100PF    | 5%  | 630V |
| C128          | 1-130-474-00 | MYLAR       | 0.0018uF | 5%  | 50V  |
| C130          | 1-106-351-00 | MYLAR       | 2200PF   | 5%  | 200V |
| C131          | 1-126-964-11 | ELECT       | 10uF     | 20% | 50V  |
| C132          | 1-136-165-00 | FILM        | 0.1uF    | 5%  | 50V  |
| C133          | 1-136-163-00 | FILM        | 0.068uF  | 5%  | 50V  |
| C136          | 1-126-964-11 | ELECT       | 10uF     | 20% | 50V  |
| C150          | 1-162-302-11 | CERAMIC     | 0.0022uF | 20% | 16V  |
| C201          | 1-126-963-11 | ELECT       | 4.7uF    | 20% | 50V  |
| C202          | 1-106-353-00 | MYLAR       | 0.0027uF | 5%  | 50V  |
| C203          | 1-136-173-00 | FILM        | 0.47uF   | 5%  | 50V  |
| C204          | 1-126-964-11 | ELECT       | 10uF     | 20% | 50V  |
| C205          | 1-136-165-00 | FILM        | 0.1uF    | 5%  | 50V  |
| C206          | 1-136-163-00 | FILM        | 0.068uF  | 5%  | 50V  |
| C207          | 1-126-964-11 | ELECT       | 10uF     | 20% | 50V  |
| C210          | 1-126-959-11 | ELECT       | 0.47uF   | 20% | 50V  |
| C211          | 1-126-964-11 | ELECT       | 10uF     | 20% | 50V  |
| C212          | 1-126-963-11 | ELECT       | 4.7uF    | 20% | 50V  |
| C213          | 1-137-428-11 | FILM        | 180PF    | 5%  | 50V  |
| C214          | 1-136-935-11 | FILM        | 22PF     | 5%  | 630V |
| C215          | 1-137-429-11 | FILM        | 270PF    | 5%  | 50V  |
| C216          | 1-130-474-00 | MYLAR       | 0.0018uF | 5%  | 50V  |
| C217          | 1-130-487-00 | MYLAR       | 0.022uF  | 5%  | 50V  |
| C218          | 1-107-714-11 | ELECT       | 10uF     | 20% | 16V  |
| C219          | 1-102-518-11 | CERAMIC     | 33PF     | 5%  | 50V  |
| C220          | 1-130-488-00 | MYLAR       | 0.027uF  | 5%  | 50V  |
| C221          | 1-126-961-11 | ELECT       | 2.2uF    | 20% | 50V  |
| C222          | 1-130-483-00 | MYLAR       | 0.01uF   | 5%  | 50V  |
| C223          | 1-130-487-00 | MYLAR       | 0.022uF  | 5%  | 50V  |
| C224          | 1-130-491-00 | MYLAR       | 0.047uF  | 5%  | 50V  |
| C225          | 1-136-803-11 | FILM        | 560PF    | 5%  | 630V |



# MAIN

| Ref. No. | Part No.     | Description |          |        | Remark |
|----------|--------------|-------------|----------|--------|--------|
| C226     | 1-130-468-00 | MYLAR       | 560PF    | 5%     | 50V    |
| C227     | 1-136-433-11 | FILM        | 100PF    | 5%     | 630V   |
| C228     | 1-130-474-00 | MYLAR       | 0.0018uF | 5%     | 50V    |
| C230     | 1-106-351-00 | MYLAR       | 2200PF   | 5%     | 200V   |
| C231     | 1-126-964-11 | ELECT       | 10uF     | 20%    | 50V    |
| C232     | 1-136-165-00 | FILM        | 0.1uF    | 5%     | 50V    |
| C233     | 1-136-163-00 | FILM        | 0.068uF  | 5%     | 50V    |
| C236     | 1-126-964-11 | ELECT       | 10uF     | 20%    | 50V    |
| C250     | 1-162-302-11 | CERAMIC     | 0.0022uF | 20%    | 16V    |
| C301     | 1-126-964-11 | ELECT       | 10uF     | 20%    | 50V    |
| C302     | 1-126-964-11 | ELECT       | 10uF     | 20%    | 50V    |
| C303     | 1-130-478-00 | MYLAR       | 0.0039uF | 5%     | 50V    |
| C304     | 1-126-959-11 | ELECT       | 0.47uF   | 20%    | 50V    |
| C305     | 1-130-494-11 | MYLAR       | 0.082uF  | 5%     | 50V    |
| C306     | 1-126-960-11 | ELECT       | 1uF      | 20%    | 50V    |
| C307     | 1-104-665-11 | ELECT       | 100uF    | 20%    | 10V    |
| C308     | 1-104-665-11 | ELECT       | 100uF    | 20%    | 10V    |
| C309     | 1-162-282-31 | CERAMIC     | 100PF    | 10%    | 50V    |
| C310     | 1-161-494-00 | CERAMIC     | 0.022uF  |        | 25V    |
| C311     | 1-126-961-11 | ELECT       | 2.2uF    | 20%    | 50V    |
| C312     | 1-162-217-31 | CERAMIC     | 56PF     | 5%     | 50V    |
| C313     | 1-126-961-11 | ELECT       | 2.2uF    | 20%    | 50V    |
| C319     | 1-126-964-11 | ELECT       | 10uF     | 20%    | 50V    |
| C320     | 1-126-947-11 | ELECT       | 47uF     | 20%    | 35V    |
| C321     | 1-126-947-11 | ELECT       | 47uF     | 20%    | 35V    |
| C322     | 1-137-613-11 | MYLAR       | 0.0018uF | 5%     | 100V   |
| C323     | 1-137-613-11 | MYLAR       | 0.0018uF | 5%     | 100V   |
| C324     | 1-106-359-00 | MYLAR       | 4700PF   | 5%     | 200V   |
| C325     | 1-126-965-11 | ELECT       | 22uF     | 20%    | 50V    |
| C326     | 1-136-558-11 | FILM        | 0.0039uF | 5%     | 630V   |
| C327     | 1-107-584-11 | CERAMIC     | 4PF      | 0.25PF | 500V   |
| C330     | 1-126-964-11 | ELECT       | 10uF     | 20%    | 50V    |
| C331     | 1-126-964-11 | ELECT       | 10uF     | 20%    | 50V    |
| C332     | 1-126-961-11 | ELECT       | 2.2uF    | 20%    | 50V    |
| C333     | 1-126-964-11 | ELECT       | 10uF     | 20%    | 50V    |
| C334     | 1-126-964-11 | ELECT       | 10uF     | 20%    | 50V    |
| C701     | 1-126-768-11 | ELECT       | 2200uF   | 20%    | 16V    |
| C702     | 1-126-936-11 | ELECT       | 3300uF   | 20%    | 16V    |
| C703     | 1-126-916-11 | ELECT       | 1000uF   | 20%    | 6.3V   |
| C704     | 1-126-947-11 | ELECT       | 47uF     | 20%    | 35V    |
| C705     | 1-126-942-61 | ELECT       | 1000uF   | 20%    | 25V    |
| C706     | 1-126-942-61 | ELECT       | 1000uF   | 20%    | 25V    |
| C707     | 1-128-548-11 | ELECT       | 4700uF   | 20%    | 25V    |
| C708     | 1-126-964-11 | ELECT       | 10uF     | 20%    | 50V    |
| C709     | 1-126-768-11 | ELECT       | 2200uF   | 20%    | 16V    |
| C710     | 1-126-964-11 | ELECT       | 10uF     | 20%    | 50V    |
| C711     | 1-126-937-11 | ELECT       | 4700uF   | 20%    | 16V    |
| C712     | 1-126-964-11 | ELECT       | 10uF     | 20%    | 50V    |
| C713     | 1-126-927-11 | ELECT       | 2200uF   | 20%    | 10V    |
| C714     | 1-126-968-11 | ELECT       | 100uF    | 20%    | 50V    |
| C715     | 1-164-159-11 | CERAMIC     | 0.1uF    |        | 50V    |
| C716     | 1-126-947-11 | ELECT       | 47uF     | 20%    | 35V    |
| C805     | 1-164-159-11 | CERAMIC     | 0.1uF    |        | 50V    |
| C806     | 1-164-159-11 | CERAMIC     | 0.1uF    |        | 50V    |
| C809     | 1-126-959-11 | ELECT       | 0.47uF   | 20%    | 50V    |
| C811     | 1-164-159-11 | CERAMIC     | 0.1uF    |        | 50V    |
| C813     | 1-126-959-11 | ELECT       | 0.47uF   | 20%    | 50V    |
| C830     | 1-164-159-11 | CERAMIC     | 0.1uF    |        | 50V    |

| Ref. No.      | Part No.     | Description                    |       |     | Remark |
|---------------|--------------|--------------------------------|-------|-----|--------|
| C831          | 1-104-665-11 | ELECT                          | 100uF | 20% | 10V    |
| < CONNECTOR > |              |                                |       |     |        |
| CN101         | 1-695-087-11 | PIN, CONNECTOR (PC BOARD) 7P   |       |     |        |
| CN102         | 1-695-087-11 | PIN, CONNECTOR (PC BOARD) 7P   |       |     |        |
| CN201         | 1-695-087-11 | PIN, CONNECTOR (PC BOARD) 7P   |       |     |        |
| CN202         | 1-695-087-11 | PIN, CONNECTOR (PC BOARD) 7P   |       |     |        |
| * CN801       | 1-568-954-11 | PIN, CONNECTOR 5P              |       |     |        |
| * CN803       | 1-568-828-11 | SOCKET, CONNECTOR 9P           |       |     |        |
| * CN804       | 1-568-826-11 | SOCKET, CONNECTOR 7P           |       |     |        |
| CN805         | 1-778-065-11 | SOCKET, CONNECTOR 39P          |       |     |        |
| CNP301        | 1-506-468-11 | PIN, CONNECTOR 3P              |       |     |        |
| * CNP302      | 1-560-062-00 | PIN, CONNECTOR 4P              |       |     |        |
| * CNP303      | 1-560-060-00 | PIN, CONNECTOR 2P              |       |     |        |
| * CNP304      | 1-560-062-00 | PIN, CONNECTOR 4P              |       |     |        |
| CNP305        | 1-691-463-11 | PIN, CONNECTOR (PC BOARD) 7P   |       |     |        |
| CNP306        | 1-764-328-11 | PIN, CONNECTOR (PCB)(V TYPE)5P |       |     |        |
| < DIODE >     |              |                                |       |     |        |
| D101          | 8-719-911-19 | DIODE 1SS119                   |       |     |        |
| D102          | 8-719-911-19 | DIODE 1SS119                   |       |     |        |
| D103          | 8-719-933-33 | DIODE HZS6A1L                  |       |     |        |
| D201          | 8-719-911-19 | DIODE 1SS119                   |       |     |        |
| D202          | 8-719-911-19 | DIODE 1SS119                   |       |     |        |
| D203          | 8-719-933-33 | DIODE HZS6A1L                  |       |     |        |
| D301          | 8-719-911-19 | DIODE 1SS119                   |       |     |        |
| D302          | 8-719-911-19 | DIODE 1SS119                   |       |     |        |
| D305          | 8-719-911-19 | DIODE 1SS119                   |       |     |        |
| D306          | 8-719-911-19 | DIODE 1SS119                   |       |     |        |
| D307          | 8-719-911-19 | DIODE 1SS119                   |       |     |        |
| D308          | 8-719-911-19 | DIODE 1SS119                   |       |     |        |
| D309          | 8-719-911-19 | DIODE 1SS119                   |       |     |        |
| D310          | 8-719-911-19 | DIODE 1SS119                   |       |     |        |
| D311          | 8-719-911-19 | DIODE 1SS119                   |       |     |        |
| D312          | 8-719-911-19 | DIODE 1SS119                   |       |     |        |
| D313          | 8-719-911-19 | DIODE 1SS119                   |       |     |        |
| D341          | 8-719-911-19 | DIODE 1SS119                   |       |     |        |
| D342          | 8-719-911-19 | DIODE 1SS119                   |       |     |        |
| D701          | 8-719-024-99 | DIODE 11ES2-NTA2B              |       |     |        |
| D702          | 8-719-024-99 | DIODE 11ES2-NTA2B              |       |     |        |
| D703          | 8-719-024-99 | DIODE 11ES2-NTA2B              |       |     |        |
| D704          | 8-719-024-99 | DIODE 11ES2-NTA2B              |       |     |        |
| D705          | 8-719-911-19 | DIODE 1SS119                   |       |     |        |
| D706          | 8-719-933-33 | DIODE HZS6A1L                  |       |     |        |
| D707          | 8-719-933-33 | DIODE HZS6A1L                  |       |     |        |
| D708          | 8-719-933-33 | DIODE HZS6A1L                  |       |     |        |
| D709          | 8-719-025-03 | DIODE RBA-402-SL               |       |     |        |
| D710          | 8-719-986-27 | DIODE HZS12B1LTA               |       |     |        |
| D711          | 8-719-911-19 | DIODE 1SS119                   |       |     |        |
| D712          | 8-719-200-31 | DIODE 21DQ05                   |       |     |        |
| D713          | 8-719-985-95 | DIODE HZS7A2LTA                |       |     |        |
| D714          | 8-719-911-19 | DIODE 1SS119                   |       |     |        |
| D715          | 8-719-911-19 | DIODE 1SS119                   |       |     |        |
| D716          | 8-719-986-00 | DIODE HZS7C1LTA                |       |     |        |
| D717          | 8-719-024-99 | DIODE 11ES2-NTA2B              |       |     |        |
| D802          | 8-719-911-19 | DIODE 1SS119                   |       |     |        |
| D803          | 8-719-911-19 | DIODE 1SS119                   |       |     |        |
| D804          | 8-719-911-19 | DIODE 1SS119                   |       |     |        |



| Ref. No. | Part No.     | Description                 | Remark | Ref. No. | Part No.     | Description            | Remark |
|----------|--------------|-----------------------------|--------|----------|--------------|------------------------|--------|
| D814     | 8-719-911-19 | DIODE 1SS119                |        | Q316     | 8-729-900-74 | TRANSISTOR DTC143TS    |        |
| D815     | 8-719-911-19 | DIODE 1SS119                |        | Q351     | 8-729-119-76 | TRANSISTOR 2SA1175-HFE |        |
|          |              | < IC >                      |        | Q352     | 8-729-900-65 | TRANSISTOR DTA144ES    |        |
| IC301    | 8-759-111-44 | IC uPC4570C-1               |        | Q353     | 8-729-900-80 | TRANSISTOR DTC114ES    |        |
| IC302    | 8-752-066-35 | IC CXA1563S                 |        | Q701     | 8-729-141-83 | TRANSISTOR 2SB1094-LK  |        |
| IC303    | 8-752-070-69 | IC CXA1598S                 |        | Q702     | 8-729-209-15 | TRANSISTOR 2SD2012     |        |
| IC304    | 8-759-106-56 | IC uPC1297CA                |        | Q703     | 8-729-141-83 | TRANSISTOR 2SB1094-LK  |        |
| IC305    | 8-759-634-51 | IC M5218AP                  |        | Q704     | 8-729-119-78 | TRANSISTOR 2SC403SP-51 |        |
| IC306    | 8-759-634-51 | IC M5218AP                  |        | Q705     | 8-729-209-15 | TRANSISTOR 2SD2012     |        |
| IC307    | 8-752-066-35 | IC CXA1563S                 |        | Q706     | 8-729-119-78 | TRANSISTOR 2SC403SP-51 |        |
| IC308    | 8-759-634-50 | IC M5218AL                  |        | Q707     | 8-729-119-76 | TRANSISTOR 2SA1175-HFE |        |
| IC309    | 8-759-634-50 | IC M5218AL                  |        | Q708     | 8-729-140-04 | TRANSISTOR 2SB1116A-L  |        |
| IC310    | 8-759-140-53 | IC uPD4053BC                |        | Q802     | 8-729-900-89 | TRANSISTOR DTC144ES    |        |
| IC311    | 8-759-634-51 | IC M5218AP                  |        | Q803     | 8-729-900-65 | TRANSISTOR DTA144ES    |        |
| IC701    | 8-759-634-51 | IC M5218AP                  |        | Q804     | 8-729-900-65 | TRANSISTOR DTA144ES    |        |
| IC801    | 8-759-422-06 | IC M38172M4-171FP           |        | Q806     | 8-729-900-80 | TRANSISTOR DTC114ES    |        |
| IC803    | 8-759-973-95 | IC BA6219B                  |        | Q807     | 8-729-900-80 | TRANSISTOR DTC114ES    |        |
| IC804    | 8-759-165-82 | IC PST600E-T                |        | Q808     | 8-729-900-80 | TRANSISTOR DTC114ES    |        |
|          |              | < JACK >                    |        | Q809     | 8-729-900-80 | TRANSISTOR DTC114ES    |        |
| J301     | 1-784-430-11 | JACK, PIN 4P (LINE IN, OUT) |        | Q810     | 8-729-801-84 | TRANSISTOR 2SB1013-4   |        |
|          |              | < COIL >                    |        | Q814     | 8-729-900-89 | TRANSISTOR DTC144ES    |        |
| L101     | 1-410-780-11 | INDUCTOR 27mH               |        |          |              | < RESISTOR >           |        |
| L121     | 1-410-778-11 | INDUCTOR 18mH               |        | R101     | 1-249-433-11 | CARBON 22K 5% 1/4W     |        |
| L201     | 1-410-780-11 | INDUCTOR 27mH               |        | R102     | 1-249-417-11 | CARBON 1K 5% 1/4W      |        |
| L221     | 1-410-778-11 | INDUCTOR 18mH               |        | R103     | 1-247-843-11 | CARBON 3.3K 5% 1/4W    |        |
|          |              | < FILTER >                  |        | R104     | 1-249-428-11 | CARBON 8.2K 5% 1/4W    |        |
| LPF101   | 1-234-037-11 | FILTER, LOW PASS            |        | R105     | 1-249-441-11 | CARBON 100K 5% 1/4W    |        |
| LPF201   | 1-234-037-11 | FILTER, LOW PASS            |        | R107     | 1-249-421-11 | CARBON 2.2K 5% 1/4W    |        |
|          |              | < TRANSISTOR >              |        | R108     | 1-247-860-11 | CARBON 16K 5% 1/4W     |        |
| Q101     | 8-729-900-74 | TRANSISTOR DTC143TS         |        | R109     | 1-249-421-11 | CARBON 2.2K 5% 1/4W    |        |
| Q102     | 8-729-900-80 | TRANSISTOR DTC114ES         |        | R110     | 1-249-417-11 | CARBON 1K 5% 1/4W      |        |
| Q103     | 8-729-922-37 | TRANSISTOR 2SD2144S         |        | R112     | 1-247-843-11 | CARBON 3.3K 5% 1/4W    |        |
| Q105     | 8-729-900-80 | TRANSISTOR DTC114ES         |        | R113     | 1-249-437-11 | CARBON 47K 5% 1/4W     |        |
| Q201     | 8-729-900-74 | TRANSISTOR DTC143TS         |        | R114     | 1-249-429-11 | CARBON 10K 5% 1/4W     |        |
| Q202     | 8-729-900-80 | TRANSISTOR DTC114ES         |        | R116     | 1-249-425-11 | CARBON 4.7K 5% 1/4W    |        |
| Q203     | 8-729-922-37 | TRANSISTOR 2SD2144S         |        | R117     | 1-249-441-11 | CARBON 100K 5% 1/4W    |        |
| Q205     | 8-729-900-80 | TRANSISTOR DTC114ES         |        | R118     | 1-249-403-11 | CARBON 68 5% 1/4W      |        |
| Q301     | 8-729-119-76 | TRANSISTOR 2SA1175-HFE      |        | R119     | 1-247-882-11 | CARBON 130K 5% 1/4W    |        |
| Q302     | 8-729-900-89 | TRANSISTOR DTC144ES         |        | R120     | 1-249-426-11 | CARBON 5.6K 5% 1/4W    |        |
| Q303     | 8-729-900-80 | TRANSISTOR DTC114ES         |        | R121     | 1-249-429-11 | CARBON 10K 5% 1/4W     |        |
| Q304     | 8-729-900-80 | TRANSISTOR DTC114ES         |        | R122     | 1-249-420-11 | CARBON 1.8K 5% 1/4W    |        |
| Q305     | 8-729-119-76 | TRANSISTOR 2SA1175-HFE      |        | R123     | 1-247-838-00 | CARBON 2K 5% 1/4W      |        |
| Q306     | 8-729-900-89 | TRANSISTOR DTC144ES         |        | R124     | 1-249-441-11 | CARBON 100K 5% 1/4W    |        |
| Q307     | 8-729-900-80 | TRANSISTOR DTC114ES         |        | R125     | 1-249-421-11 | CARBON 2.2K 5% 1/4W    |        |
| Q308     | 8-729-900-80 | TRANSISTOR DTC114ES         |        | R126     | 1-249-425-11 | CARBON 4.7K 5% 1/4W    |        |
| Q309     | 8-729-900-80 | TRANSISTOR DTC114ES         |        | R127     | 1-249-435-11 | CARBON 33K 5% 1/4W     |        |
| Q310     | 8-729-194-57 | TRANSISTOR 2SC945-P         |        | △R128    | 1-219-153-11 | FUSIBLE 10 5% 1/4W F   |        |
| Q311     | 8-729-194-57 | TRANSISTOR 2SC945-P         |        | R129     | 1-247-883-00 | CARBON 150K 5% 1/4W    |        |
| Q312     | 8-729-922-37 | TRANSISTOR 2SD2144S         |        | R130     | 1-249-434-11 | CARBON 27K 5% 1/4W     |        |
| Q313     | 8-729-119-78 | TRANSISTOR 2SC403SP-51      |        | R131     | 1-247-874-11 | CARBON 62K 5% 1/4W     |        |
| Q314     | 8-729-119-78 | TRANSISTOR 2SC403SP-51      |        | R133     | 1-249-410-11 | CARBON 270 5% 1/4W     |        |
| Q315     | 8-729-900-80 | TRANSISTOR DTC114ES         |        | R137     | 1-249-441-11 | CARBON 100K 5% 1/4W    |        |
|          |              |                             |        | R138     | 1-249-441-11 | CARBON 100K 5% 1/4W    |        |
|          |              |                             |        | R139     | 1-247-864-11 | CARBON 24K 5% 1/4W     |        |
|          |              |                             |        | R140     | 1-249-429-11 | CARBON 10K 5% 1/4W     |        |
|          |              |                             |        | R141     | 1-249-419-11 | CARBON 1.5K 5% 1/4W    |        |
|          |              |                             |        | R142     | 1-249-426-11 | CARBON 5.6K 5% 1/4W    |        |

The components identified by mark △ or dotted line with mark △ are critical for safety.  
Replace only with part number specified.

# MAIN

| Ref. No. | Part No.     | Description |      |    | Remark | Ref. No. | Part No.     | Description |      |     | Remark |
|----------|--------------|-------------|------|----|--------|----------|--------------|-------------|------|-----|--------|
| R143     | 1-247-843-11 | CARBON      | 3.3K | 5% | 1/4W   | R316     | 1-247-872-11 | CARBON      | 51K  | 5%  | 1/4W   |
| R144     | 1-249-409-11 | CARBON      | 220  | 5% | 1/4W   | R317     | 1-249-435-11 | CARBON      | 33K  | 5%  | 1/4W   |
| R145     | 1-249-426-11 | CARBON      | 5.6K | 5% | 1/4W   | R318     | 1-247-864-11 | CARBON      | 24K  | 5%  | 1/4W   |
| R152     | 1-247-887-00 | CARBON      | 220K | 5% | 1/4W   | R319     | 1-249-436-11 | CARBON      | 39K  | 5%  | 1/4W   |
| R201     | 1-249-433-11 | CARBON      | 22K  | 5% | 1/4W   | R320     | 1-249-435-11 | CARBON      | 33K  | 5%  | 1/4W   |
| R202     | 1-249-417-11 | CARBON      | 1K   | 5% | 1/4W   | R321     | 1-247-856-00 | CARBON      | 11K  | 5%  | 1/4W   |
| R203     | 1-247-843-11 | CARBON      | 3.3K | 5% | 1/4W   | R322     | 1-249-432-11 | CARBON      | 18K  | 5%  | 1/4W   |
| R204     | 1-249-428-11 | CARBON      | 8.2K | 5% | 1/4W   | R323     | 1-247-864-11 | CARBON      | 24K  | 5%  | 1/4W   |
| R205     | 1-249-441-11 | CARBON      | 100K | 5% | 1/4W   | R324     | 1-247-874-11 | CARBON      | 62K  | 5%  | 1/4W   |
| R207     | 1-249-421-11 | CARBON      | 2.2K | 5% | 1/4W   | R325     | 1-247-862-11 | CARBON      | 20K  | 5%  | 1/4W   |
| R208     | 1-247-860-11 | CARBON      | 16K  | 5% | 1/4W   | R326     | 1-249-437-11 | CARBON      | 47K  | 5%  | 1/4W   |
| R209     | 1-249-421-11 | CARBON      | 2.2K | 5% | 1/4W   | R327     | 1-247-852-11 | CARBON      | 7.5K | 5%  | 1/4W   |
| R210     | 1-249-417-11 | CARBON      | 1K   | 5% | 1/4W   | R328     | 1-247-860-11 | CARBON      | 16K  | 5%  | 1/4W   |
| R212     | 1-247-843-11 | CARBON      | 3.3K | 5% | 1/4W   | R329     | 1-247-862-11 | CARBON      | 20K  | 5%  | 1/4W   |
| R213     | 1-249-437-11 | CARBON      | 47K  | 5% | 1/4W   | R330     | 1-247-836-11 | CARBON      | 1.6K | 5%  | 1/4W   |
| R214     | 1-249-429-11 | CARBON      | 10K  | 5% | 1/4W   | R331     | 1-249-425-11 | CARBON      | 4.7K | 5%  | 1/4W   |
| R216     | 1-249-425-11 | CARBON      | 4.7K | 5% | 1/4W   | R332     | 1-249-422-11 | CARBON      | 2.7K | 5%  | 1/4W   |
| R217     | 1-249-441-11 | CARBON      | 100K | 5% | 1/4W   | R333     | 1-249-417-11 | CARBON      | 1K   | 5%  | 1/4W   |
| R218     | 1-249-403-11 | CARBON      | 68   | 5% | 1/4W   | R334     | 1-249-417-11 | CARBON      | 1K   | 5%  | 1/4W   |
| R219     | 1-247-882-11 | CARBON      | 130K | 5% | 1/4W   | R335     | 1-249-413-11 | CARBON      | 470  | 5%  | 1/4W   |
| R220     | 1-249-426-11 | CARBON      | 5.6K | 5% | 1/4W   | R336     | 1-247-832-11 | CARBON      | 1.1K | 5%  | 1/4W   |
| R221     | 1-249-429-11 | CARBON      | 10K  | 5% | 1/4W   | R337     | 1-249-429-11 | CARBON      | 10K  | 5%  | 1/4W   |
| R222     | 1-249-420-11 | CARBON      | 1.8K | 5% | 1/4W   | R338     | 1-249-421-11 | CARBON      | 2.2K | 5%  | 1/4W   |
| R223     | 1-247-838-00 | CARBON      | 2K   | 5% | 1/4W   | R339     | 1-249-440-11 | CARBON      | 82K  | 5%  | 1/4W   |
| R224     | 1-249-441-11 | CARBON      | 100K | 5% | 1/4W   | R340     | 1-249-440-11 | CARBON      | 82K  | 5%  | 1/4W   |
| R225     | 1-249-421-11 | CARBON      | 2.2K | 5% | 1/4W   | R341     | 1-249-390-11 | CARBON      | 5.6  | 5%  | 1/4W   |
| R226     | 1-249-425-11 | CARBON      | 4.7K | 5% | 1/4W   | R342     | 1-249-390-11 | CARBON      | 5.6  | 5%  | 1/4W   |
| R227     | 1-249-435-11 | CARBON      | 33K  | 5% | 1/4W   | R343     | 1-249-437-11 | CARBON      | 47K  | 5%  | 1/4W   |
| △ R228   | 1-219-153-11 | FUSIBLE     | 10   | 5% | 1/4W F | R344     | 1-249-429-11 | CARBON      | 10K  | 5%  | 1/4W   |
| R229     | 1-247-883-00 | CARBON      | 150K | 5% | 1/4W   | R345     | 1-249-433-11 | CARBON      | 22K  | 5%  | 1/4W   |
| R230     | 1-249-434-11 | CARBON      | 27K  | 5% | 1/4W   | R346     | 1-249-437-11 | CARBON      | 47K  | 5%  | 1/4W   |
| R231     | 1-247-874-11 | CARBON      | 62K  | 5% | 1/4W   | R349     | 1-249-427-11 | CARBON      | 6.8K | 5%  | 1/4W   |
| R233     | 1-249-410-11 | CARBON      | 270  | 5% | 1/4W   | R350     | 1-249-441-11 | CARBON      | 100K | 5%  | 1/4W   |
| R237     | 1-249-441-11 | CARBON      | 100K | 5% | 1/4W   | R351     | 1-247-843-11 | CARBON      | 3.3K | 5%  | 1/4W   |
| R238     | 1-249-441-11 | CARBON      | 100K | 5% | 1/4W   | R352     | 1-249-429-11 | CARBON      | 10K  | 5%  | 1/4W   |
| R239     | 1-247-864-11 | CARBON      | 24K  | 5% | 1/4W   | R353     | 1-249-429-11 | CARBON      | 10K  | 5%  | 1/4W   |
| R240     | 1-249-429-11 | CARBON      | 10K  | 5% | 1/4W   | R354     | 1-249-417-11 | CARBON      | 1K   | 5%  | 1/4W   |
| R241     | 1-249-419-11 | CARBON      | 1.5K | 5% | 1/4W   | R355     | 1-249-401-11 | CARBON      | 47   | 5%  | 1/4W   |
| R242     | 1-249-426-11 | CARBON      | 5.6K | 5% | 1/4W   | R356     | 1-249-434-11 | CARBON      | 27K  | 5%  | 1/4W   |
| R243     | 1-247-843-11 | CARBON      | 3.3K | 5% | 1/4W   | R357     | 1-247-848-11 | CARBON      | 5.1K | 5%  | 1/4W   |
| R244     | 1-249-409-11 | CARBON      | 220  | 5% | 1/4W   | R358     | 1-247-870-11 | CARBON      | 43K  | 5%  | 1/4W   |
| R245     | 1-249-426-11 | CARBON      | 5.6K | 5% | 1/4W   | R359     | 1-249-434-11 | CARBON      | 27K  | 5%  | 1/4W   |
| R252     | 1-247-887-00 | CARBON      | 220K | 5% | 1/4W   | R360     | 1-249-437-11 | CARBON      | 47K  | 5%  | 1/4W   |
| R302     | 1-247-848-11 | CARBON      | 5.1K | 5% | 1/4W   | R361     | 1-249-429-11 | CARBON      | 10K  | 5%  | 1/4W   |
| R303     | 1-249-421-11 | CARBON      | 2.2K | 5% | 1/4W   | △ R363   | 1-215-452-00 | METAL       | 20K  | 1%  | 1/4W F |
| R304     | 1-249-421-11 | CARBON      | 2.2K | 5% | 1/4W   | R365     | 1-249-433-11 | CARBON      | 22K  | 5%  | 1/4W   |
| △ R305   | 1-215-452-00 | METAL       | 20K  | 1% | 1/4W F | R366     | 1-247-862-11 | CARBON      | 20K  | 5%  | 1/4W   |
| R306     | 1-249-436-11 | CARBON      | 39K  | 5% | 1/4W   | R367     | 1-249-429-11 | CARBON      | 10K  | 5%  | 1/4W   |
| R307     | 1-249-433-11 | CARBON      | 22K  | 5% | 1/4W   | R368     | 1-249-429-11 | CARBON      | 10K  | 5%  | 1/4W   |
| R308     | 1-249-437-11 | CARBON      | 47K  | 5% | 1/4W   | R701     | 1-249-417-11 | CARBON      | 1K   | 5%  | 1/4W   |
| △ R309   | 1-215-455-00 | METAL       | 27K  | 1% | 1/4W F | R702     | 1-249-409-11 | CARBON      | 220  | 5%  | 1/4W   |
| R310     | 1-249-441-11 | CARBON      | 100K | 5% | 1/4W   | R703     | 1-247-812-11 | CARBON      | 160  | 5%  | 1/4W   |
| R311     | 1-249-441-11 | CARBON      | 100K | 5% | 1/4W   | R704     | 1-249-420-11 | CARBON      | 1.8K | 5%  | 1/4W   |
| R312     | 1-249-433-11 | CARBON      | 22K  | 5% | 1/4W   | △ R705   | 1-219-139-11 | FUSIBLE     | 0.68 | 10% | 1/4W F |
| R313     | 1-249-434-11 | CARBON      | 27K  | 5% | 1/4W   | R706     | 1-249-425-11 | CARBON      | 4.7K | 5%  | 1/4W   |
| R314     | 1-247-872-11 | CARBON      | 51K  | 5% | 1/4W   | R707     | 1-249-427-11 | CARBON      | 6.8K | 5%  | 1/4W   |
| R315     | 1-247-866-11 | CARBON      | 30K  | 5% | 1/4W   | R708     | 1-249-419-11 | CARBON      | 1.5K | 5%  | 1/4W   |
|          |              |             |      |    |        | R709     | 1-249-419-11 | CARBON      | 1.5K | 5%  | 1/4W   |

The components identified by mark △ or dotted line with mark △ are critical for safety.  
Replace only with part number specified.

| Ref. No. | Part No.     | Description                   | Remark          | Ref. No. | Part No.     | Description                          | Remark |
|----------|--------------|-------------------------------|-----------------|----------|--------------|--------------------------------------|--------|
| R710     | 1-249-427-11 | CARBON                        | 6.8K 5% 1/4W    |          |              | < TEST PIN >                         |        |
| R711     | 1-249-425-11 | CARBON                        | 4.7K 5% 1/4W    |          |              |                                      |        |
| R712     | 1-249-417-11 | CARBON                        | 1K 5% 1/4W      | TP301    | 1-564-506-11 | PLUG, CONNECTOR 3P (TEST TERMINAL)   |        |
| △ R713   | 1-219-139-11 | FUSIBLE                       | 0.68 10% 1/4W F | TP301    | 1-764-326-11 | PIN, CONNECTOR (PCB)(V TYPE)3P       |        |
| R714     | 1-249-427-11 | CARBON                        | 6.8K 5% 1/4W    |          |              | (TEST TERMINAL)                      |        |
| △ R715   | 1-219-135-11 | FUSIBLE                       | 0.15 10% 1/4W F | * TP801  | 1-560-060-00 | PIN, CONNECTOR 2P (TESY TERMINAL)    |        |
| R716     | 1-249-425-11 | CARBON                        | 4.7K 5% 1/4W    |          |              | < VIBRATOR >                         |        |
| R717     | 1-249-417-11 | CARBON                        | 1K 5% 1/4W      |          |              |                                      |        |
| △ R718   | 1-219-137-11 | FUSIBLE                       | 0.33 10% 1/4W F | X801     | 1-577-358-21 | VIBRATOR, CERAMIC (4MHz)             |        |
| R719     | 1-249-425-11 | CARBON                        | 4.7K 5% 1/4W    |          |              | *****                                |        |
| R720     | 1-247-830-11 | CARBON                        | 910 5% 1/4W     |          |              |                                      |        |
| R721     | 1-249-437-11 | CARBON                        | 47K 5% 1/4W     | *        | A-2007-775-A | PANEL BOARD, COMPLETE (AEP, AUS)     |        |
| R722     | 1-249-437-11 | CARBON                        | 47K 5% 1/4W     |          |              | *****                                |        |
| R723     | 1-247-843-11 | CARBON                        | 3.3K 5% 1/4W    |          |              | (Including AC POWER BOARD, HP BOARD, |        |
| R724     | 1-249-429-11 | CARBON                        | 10K 5% 1/4W     |          |              | and REC VOL BOARD)                   |        |
| R802     | 1-249-433-11 | CARBON                        | 22K 5% 1/4W     |          |              |                                      |        |
| R803     | 1-249-441-11 | CARBON                        | 100K 5% 1/4W    | *        | A-2007-777-A | PANEL BOARD, COMPLETE (MY, SP)       |        |
| R804     | 1-249-417-11 | CARBON                        | 1K 5% 1/4W      |          |              | *****                                |        |
| R805     | 1-249-425-11 | CARBON                        | 4.7K 5% 1/4W    |          |              | (Including AC POWER BOARD, HP BOARD, |        |
| R807     | 1-249-422-11 | CARBON                        | 2.7K 5% 1/4W    |          |              | REC VOL BOARD, TRANS1 BOARD,         |        |
|          |              |                               |                 |          |              | and TRANS 2 BOARD)                   |        |
| R808     | 1-249-425-11 | CARBON                        | 4.7K 5% 1/4W    | *        | 3-386-245-11 | HOLDER (FL)                          |        |
| R810     | 1-249-422-11 | CARBON                        | 2.7K 5% 1/4W    |          |              | < CAPACITOR >                        |        |
| R811     | 1-249-422-11 | CARBON                        | 2.7K 5% 1/4W    |          |              |                                      |        |
| R812     | 1-249-417-11 | CARBON                        | 1K 5% 1/4W      | C901     | 1-104-665-11 | ELECT 100uF 20% 10V                  |        |
| R813     | 1-249-419-11 | CARBON                        | 1.5K 5% 1/4W    |          |              | < CONNECTOR >                        |        |
| R814     | 1-249-421-11 | CARBON                        | 2.2K 5% 1/4W    |          |              |                                      |        |
| R815     | 1-247-828-11 | CARBON                        | 750 5% 1/4W     | CN901    | 1-778-065-11 | SOCKET, CONNECTOR 39P                |        |
| R816     | 1-249-413-11 | CARBON                        | 470 5% 1/4W     |          |              | < DIODE >                            |        |
| △ R817   | 1-212-954-11 | FUSIBLE                       | 6.8 5% 1/2W F   | D901     | 8-719-911-19 | DIODE 1SS119                         |        |
| R824     | 1-249-430-11 | CARBON                        | 12K 5% 1/4W     | D902     | 8-719-911-19 | DIODE 1SS119                         |        |
| R825     | 1-249-435-11 | CARBON                        | 33K 5% 1/4W     | D903     | 8-719-911-19 | DIODE 1SS119                         |        |
| R826     | 1-249-429-11 | CARBON                        | 10K 5% 1/4W     |          |              | < IC >                               |        |
| R831     | 1-249-429-11 | CARBON                        | 10K 5% 1/4W     | IC901    | 8-749-014-66 | IC NJL56H400                         |        |
| R832     | 1-249-429-11 | CARBON                        | 10K 5% 1/4W     |          |              | < TRANSISTOR >                       |        |
| R833     | 1-249-429-11 | CARBON                        | 10K 5% 1/4W     |          |              |                                      |        |
| R834     | 1-249-434-11 | CARBON                        | 27K 5% 1/4W     | Q901     | 8-729-900-89 | TRANSISTOR DTC144ES                  |        |
| R835     | 1-249-434-11 | CARBON                        | 27K 5% 1/4W     | Q902     | 8-729-900-89 | TRANSISTOR DTC144ES                  |        |
| R845     | 1-249-429-11 | CARBON                        | 10K 5% 1/4W     | Q903     | 8-729-900-89 | TRANSISTOR DTC144ES                  |        |
|          |              | < CONPOSITION CIRCUIT BLOCK > |                 |          |              | < RESISTOR >                         |        |
| RB801    | 1-233-199-11 | COMPOSITION CIRCUIT BLOCK 10k |                 |          |              |                                      |        |
|          |              | < VARIABLE RESISTOR >         |                 |          |              |                                      |        |
| RV101    | 1-241-765-11 | RES, ADJ, CARBON 22K          |                 | R901     | 1-249-441-11 | CARBON 100K 5% 1/4W                  |        |
| RV102    | 1-238-019-11 | RES, ADJ, CARBON 47K          |                 | R905     | 1-247-838-00 | CARBON 2K 5% 1/4W                    |        |
| RV103    | 1-241-765-11 | RES, ADJ, CARBON 22K          |                 | R906     | 1-249-422-11 | CARBON 2.7K 5% 1/4W                  |        |
| RV121    | 1-241-763-11 | RES, ADJ, CARBON 4.7K         |                 | R907     | 1-247-848-11 | CARBON 5.1K 5% 1/4W                  |        |
| RV201    | 1-241-765-11 | RES, ADJ, CARBON 22K          |                 | R908     | 1-249-429-11 | CARBON 10K 5% 1/4W                   |        |
| RV202    | 1-238-019-11 | RES, ADJ, CARBON 47K          |                 |          |              |                                      |        |
| RV203    | 1-241-765-11 | RES, ADJ, CARBON 22K          |                 | R909     | 1-247-866-11 | CARBON 30K 5% 1/4W                   |        |
| RV221    | 1-241-763-11 | RES, ADJ, CARBON 4.7K         |                 | R910     | 1-247-838-00 | CARBON 2K 5% 1/4W                    |        |
| RV306    | 1-241-763-11 | RES, ADJ, CARBON 4.7K         |                 | R911     | 1-249-422-11 | CARBON 2.7K 5% 1/4W                  |        |
|          |              | < TRANSFORMER >               |                 | R912     | 1-247-848-11 | CARBON 5.1K 5% 1/4W                  |        |
| T101     | 1-433-344-11 | TRANSFORMER, BIAS OSCILLATION |                 | R923     | 1-247-807-31 | CARBON 100 5% 1/4W                   |        |
| T201     | 1-433-344-11 | TRANSFORMER, BIAS OSCILLATION |                 |          |              |                                      |        |
| T301     | 1-423-614-11 | TRANSFORMER, BIAS OSCILLATION |                 | R924     | 1-247-807-31 | CARBON 100 5% 1/4W                   |        |
|          |              |                               |                 |          |              | < SWITCH >                           |        |
|          |              |                               |                 | S901     | 1-572-184-11 | SWITCH, KEYBOARD (■)                 |        |

The components identified by mark △ or dotted line with mark △ are critical for safety.  
Replace only with part number specified.

## PANEL

**REC VOL**


## TRANSFORMER

**TRANS 1**

**TRANS 2**

| Ref. No.                            | Part No.     | Description                            | Remark       |
|-------------------------------------|--------------|--|--------------|
| S902                                | 1-572-184-11 | SWITCH, KEYBOARD (AMS ◀◀)              |              |
| S903                                | 1-572-184-11 | SWITCH, KEYBOARD (AMS ▶▶)              |              |
| S904                                | 1-572-184-11 | SWITCH, KEYBOARD (●, REC)              |              |
| S905                                | 1-572-184-11 | SWITCH, KEYBOARD (◻, REC MUTING)       |              |
| S906                                | 1-572-184-11 | SWITCH, KEYBOARD (▷)                   |              |
| S907                                | 1-572-184-11 | SWITCH, KEYBOARD (■, PAUSE)            |              |
| S908                                | 1-572-184-11 | SWITCH, KEYBOARD (MEMORY)              |              |
| S909                                | 1-572-184-11 | SWITCH, KEYBOARD (RESET)               |              |
| < FLUORESCENT INDICATOR TUBE >      |              |  |              |
| VFD901                              | 1-517-163-11 | INDICATOR TUBE, FLUORESCENT            |              |
| *****                               |              |  |              |
| REC VOL BOARD                       |              |  |              |
| *****                               |              |  |              |
| (Included in PANEL BOARD, COMPLETE) |              |  |              |
| < RESISTOR >                        |              |  |              |
| R153                                | 1-249-425-11 | CARBON                                 | 4.7K 5% 1/4W |
| R253                                | 1-249-425-11 | CARBON                                 | 4.7K 5% 1/4W |
| R362                                | 1-249-429-11 | CARBON                                 | 10K 5% 1/4W  |
| R915                                | 1-249-429-11 | CARBON                                 | 10K 5% 1/4W  |
| R916                                | 1-247-866-11 | CARBON                                 | 30K 5% 1/4W  |
| R917                                | 1-247-836-11 | CARBON                                 | 1.6K 5% 1/4W |
| R918                                | 1-247-840-00 | CARBON                                 | 2.4K 5% 1/4W |
| R919                                | 1-247-843-11 | CARBON                                 | 3.3K 5% 1/4W |
| R920                                | 1-249-426-11 | CARBON                                 | 5.6K 5% 1/4W |
| R921                                | 1-247-858-11 | CARBON                                 | 13K 5% 1/4W  |
| R922                                | 1-247-868-11 | CARBON                                 | 36K 5% 1/4W  |
| < VARIABLE RESISTOR >               |              |  |              |
| RV301                               | 1-225-220-11 | RES, VAR, CARBON 50K/50K (REC LEVEL)   |              |
| RV302                               | 1-241-897-11 | RES, VAR, CARBON 50K/50K (BALANCE)     |              |
| RV303                               | 1-241-896-11 | RES, VAR, CARBON 10K (BIAS)            |              |
| RV304                               | 1-225-568-11 | RES, VAR, CARBON 5K/5K (CAL REC LEVEL) |              |
| < SWITCH >                          |              |  |              |
| S910                                | 1-572-184-11 | SWITCH, KEYBOARD (MONITOR)             |              |
| S911                                | 1-572-184-11 | SWITCH, KEYBOARD (AUTO CAL)            |              |
| S913                                | 1-762-647-11 | SWITCH, ROTARY (DOLBY NR)              |              |
| *****                               |              |  |              |
| TRANSFORMER BOARD (AEP, AUS)        |              |  |              |
| *****                               |              |  |              |
| (Included in MAIN BOARD, COMPLETE)  |              |  |              |
| *                                   | 3-923-762-11 | HOLDER (TR)                            |              |
| < CAPACITOR >                       |              |  |              |
| C718                                | 1-136-165-00 | FILM                                   | 0.1uF 5% 50V |
| C719                                | 1-136-165-00 | FILM                                   | 0.1uF 5% 50V |
| < CONNECTOR >                       |              |  |              |
| CNP701                              | 1-564-513-11 | PLUG, CONNECTOR 10P                    |              |
| CNP701                              | 1-764-333-11 | PIN, CONNECTOR(PCB)(V TYPE)10P         |              |
| * CNP702                            | 1-580-230-31 | PIN, CONNECTOR (PC BOARD) 2P           |              |

| Ref. No.                            | Part No.     | Description                     | Remark       |
|-------------------------------------|--------------|---------------------------------|--------------|
| < LINE FILTER >                     |              |                                 |              |
| △ LF701                             | 1-424-485-11 | FILTER, LINE                    |              |
| *****                               |              |                                 |              |
| TRANS 1 BOARD (MY, SP)              |              |                                 |              |
| *****                               |              |                                 |              |
| (Included in PANEL BOARD, COMPLETE) |              |                                 |              |
| < CONNECTOR >                       |              |                                 |              |
| * CNP702                            | 1-580-230-31 | PIN, CONNECTOR (PC BOARD) 2P    |              |
| < LINE FILTER >                     |              |                                 |              |
| △ LF701                             | 1-424-485-11 | FILTER, LINE                    |              |
| *****                               |              |                                 |              |
| TRANS 2 BOARD (MY, SP)              |              |                                 |              |
| *****                               |              |                                 |              |
| (Included in PANEL BOARD, COMPLETE) |              |                                 |              |
| < CAPACITOR >                       |              |                                 |              |
| C718                                | 1-136-165-00 | FILM                            | 0.1uF 5% 50V |
| C719                                | 1-136-165-00 | FILM                            | 0.1uF 5% 50V |
| < CONNECTOR >                       |              |                                 |              |
| CNP701                              | 1-564-513-11 | PLUG, CONNECTOR 10P             |              |
| CNP701                              | 1-764-333-11 | PIN, CONNECTOR(PCB)(V TYPE)10P  |              |
| *****                               |              |                                 |              |
| MISCELLANEOUS                       |              |                                 |              |
| *****                               |              |                                 |              |
| △ 7                                 | 1-575-651-21 | CORD, POWER (AEP,MY,SP)         |              |
| △ 7                                 | 1-696-845-11 | CORD, POWER (AUS)               |              |
| △ 11                                | 1-692-155-11 | SELECTOR, POWER VOLTAGE (MY,SP) |              |
| 59                                  | 1-777-109-11 | WIRE (FLAT TYPE) (39 CORE)      |              |
| 103                                 | 1-769-915-11 | WIRE (FLAT TYPE) (9 CORE)       |              |
| 104                                 | 1-765-314-11 | WIRE (FLAT TYPE) (7 CORE)       |              |
| 159                                 | 1-638-983-11 | MOTOR FLEXIBLE BOARD            |              |
| HE301                               | 1-543-673-11 | HEAD, MAGNETIC (ERASE)          |              |
| HRP301                              | 1-543-733-11 | HEAD,MAGNETIC (RECORD/PLAYBACK) |              |
| M901                                | X-3363-501-2 | MOTOR ASSY (REEL)               |              |
| M902                                | X-3374-302-1 | MOTOR ASSY (CAPSTAN)            |              |
| △ T701                              | 1-431-668-11 | TRANSFORMER, POWER (AEP)        |              |
| △ T701                              | 1-431-737-11 | TRANSFORMER, POWER (AUS)        |              |
| △ T701                              | 1-431-738-11 | TRANSFORMER, POWER (MY,SP)      |              |
| *****                               |              |                                 |              |
| *****                               |              |                                 |              |
| HARDWARE LIST                       |              |                                 |              |
| *****                               |              |                                 |              |
| #1                                  | 7-685-646-79 | SCREW +BVTP 3X8 TYPE2 N-S       |              |
| #2                                  | 7-685-885-09 | SCREW +BVTT 4X16 (S)            |              |
| #3                                  | 7-685-863-09 | SCREW +BVTT 2.6X8 (S)           |              |
| #4                                  | 7-685-134-19 | SCREW +PTPDH 2.6X8 (TYPE2)      |              |
| #5                                  | 7-685-862-09 | SCREW +BVTT 2.6X6 (S)           |              |
| #6                                  | 7-621-772-10 | SCREW +B 2X4                    |              |
| #7                                  | 7-621-775-00 | SCREW +B 2.6X3                  |              |
| #8                                  | 7-627-556-08 | SCREW +P 2.6X2.8                |              |

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Replace only with part number specified.

| <u>Ref. No.</u>                 | <u>Part No.</u> | <u>Description</u>  | <u>Remark</u> |
|---------------------------------|-----------------|---|---------------|
| ACCESSORIES & PACKING MATERIALS |                 |   |               |
| *****                           |                 |   |               |
| 1-776-263-11                    |                 | CORD, CONNECTION (AUDIO) 1.5m                                 |               |
| 3-862-301-11                    |                 | MANUAL, INSTRUCTION (ENGLISH, FRENCH,<br>SPANISH, PORTUGUESE) |               |
| 3-862-301-21                    |                 | MANUAL, INSTRUCTION (GERMAN, DUTCH,<br>SWEDISH, ITALIAN)(AEP) |               |
| 3-862-301-31                    |                 | MANUAL, INSTRUCTION (CHINESE)(MY,SP)                          |               |

